

<223> Clone ID: LIB103-053-Q1-E1-H10

<400> 4232

gtccaacgcc gtggacatga agctcagggg tgaccttgaa aggctcaaga agatcaggaa 60  
ccatcggtgt ctgcgtcact actgggggtgt gcgtgtccgc ggtcagcaca ccaagactac 120  
cggcaggaga ggaaagactg ttggtgtctc caagaagcga taagctgctt cacaagatt 180  
cctcataget ttgtactac tgtgttggtc catttccaga atcttaaggg agtggtctta 240  
tttagatgat taccttggat gatgttttgc cctagataat gttttggttc tggaaccttt 300  
aatatattgt atcttgaatt ctttgttgaa ctcgaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
aaagcggccg ct 372

<210> 4233

<211> 326

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-053-Q1-E1-H12

<400> 4233

gtcgacgtca acacgaaagc cggatcgagc gggctgctgc ttctcctcgc tctcttaatt 60  
gaccctgtaa acagtgcagc agatatcgtc actgaagacc accaagaaat tatcaagcat 120  
tttgccagaa tcaaatacga gactgttctt gagaacactg atgcatgggc tgatgacgat 180  
gattacgatg atgattatta agattatgaa actgggtgatg ctgatgatga tcattccaat 240  
tctggataag acttctcggg tcaagattgc taggacgatg accacgatga tcatccttag 300  
gctaacggcg ataattctgg ctgagc 326

<210> 4234

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-A3

<400> 4234

actagcatta gtaccctacg gcaacgcaac gcccgaggag ctaggcgagc ctagctacta 60  
cctagaccag tgatctaagc gcagctccac tagccagctg cgcgcagcct cgcgacgcc 120

gacgttatat tcggtcccct cctctctctc ctccggggtt tcgggcgcga aatatcactg 180  
ctcatcgccc atacctctct ctctgcctct actacgtgcg tacaacgaga gatcctctga 240  
gatcatgaaa ttaggcgctg agatacgtac actgcttgct cgcacgcggt ctcagctcga 300  
gaatcgagtt attgccgtcg tatatttctc gagcttggtc cgtcgcacgc tcgcatgcc 360  
aattttacat gcctgattcg tgttctttct ggcgtagcca ctagtaagct ttcagctggg 420  
cgtgt 425

<210> 4235  
<211> 173  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-054-Q1-E1-A5  
<400> 4235

ttctcaacat ttggtgtgca aggcaaacca atcaacaagg aactaagaca aaataataaa 60  
gtaacgaaat aaagataaaa aaaaagccca cgaccagga ggttgatgt ttcgctcggt 120  
gccgcttga gtcctgcct ctctagagt tgcacccatc ttcacgggtt ttc 173

<210> 4236  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-054-Q1-E1-A6  
<400> 4236

ggggccacgg agatgggtctg actggcatga agcaagggga tctaactatt tggatgttg 60  
agcagcagaa tgccaaggc gcatatagtt ctacagaaga ggtgaaggag gaagtaaagt 120  
gcatcaaggc cattatagag aggctgatac agagggaagg ccatcttggtg gtcacagatg 180  
aaggaacagc ggcagcagaa ggtgctgcgg caagggcatc ggagcacaga atcctggctg 240  
ttaacccgaa ctacgtcatt gattgattaa ccagctgagg tcacacagct aactagatcc 300  
atcatatgtg gttgaccaat agagcagaca ttcaaacgga agacatcctg ttgtgatatg 360  
ctctagaaat gatatgttgt acctgccatc cccttcccaa ggaagcaca gatctctgga 420  
attgtatctt ctttccaagg ttgaagtgtg gtaat 455



<210> 4237  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-054-Q1-E1-A7  
  
 <400> 4237

gggggagagg ggatagaaga cactgggaac agggcctcac cgcgtgcatg ccagagtggg 60  
 agaaaggact cccgaggccc aatgggtgagc acatgtaccc cgtctacggc cgccggagcg 120  
 aggtgccatg aggaggggga tgtacgaaga ggagctcatc agcgagttgt ctggaagatc 180  
 cacgatgaca tatggatctc aggaacggta atttggcgtc aggggatctc ggacgacggc 240  
 gaatcgaaga tggcgggcga tggacagatc cggcggagat ggctttggta gagaagttga 300  
 agggcaccgc acgtctcaat cttcggcggtg gtgattccca gcttgacggc gggcatcagg 360  
 gacatggcgg tgcggcctct cgacgacatt ggccacggga gcggtgactc tcaggtgagc 420  
 acgtgagcga catgccctc 439

<210> 4238  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-054-Q1-E1-A8  
  
 <400> 4238

cggggaggag gctcaaatgt tcttcacat cgtgctggcg cggtagatgc aactgaaccc 60  
 gcggcacttc ggccctcacc tcggcgacaa gcatcttctc caagctcacg tgtgacatct 120  
 agggctcctg tatcggggcg gatggcttca tcgtggcgat aattgggggtg gatgacatca 180  
 tcaatgggct catcaggagg gcgcacaggc ttcacacgt tcctcgatcat gtagtaatac 240  
 gtcgtcttcg tcgtcttcac acagcgacat catcgacgcc atcctcacca tggacaacaa 300  
 catgggggtc ttcgcatatg cagggcctgt acagatcttt gtgtcagatc acttgattcc 360  
 tgacgatatg gaattccaat ctgatgatgt gccacactac aggacttctg atgcatcggt 420  
 gatca 425

<210> 4239  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-A9

<400> 4239

gaagccacaa tccggcggag cactacttgg agcaggtaac agaaggtgcc cgcttaataa 60  
 aggcgcagtt ctcgaagaat gtcctgttgg agtgacaaat cgaatcattg taaaaacaat 120  
 gttatattga ttacggggct atatttatac ttttttcttg aaagtattat tgtgtctcct 180  
 gcgcggctgt ttctatgtat atgtgtaatc caaaagttag gagtcgttgg cttcagcccc 240  
 cacgcataca atgcgggggt gttcgcaaaa aaatatgcat aatcacactt gatccaacgt 300  
 cttgggtccat taaggagggtg atcgcacgtc gaactaggca accggacgat atagctgtaa 360  
 cactttcgct tagccatggg attttaccgg tggggctact atgtagcccc tgggtaccttc 420  
 gcg 423

<210> 4240  
 <211> 212  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-B1

<400> 4240

catcaacgaa tcataattcc cgggcaagaa gttccaagga atccattgaa caacctacaa 60  
 ccaaaggtga caattcctca attgacccaa tgaaactgct gcccctctaa ggcttcgggc 120  
 cgaagccaaa gggctccact ccaaaagggtg gtgggtcgcg tggaagaagt ggtgggtcgcg 180  
 gtggaagagg tggccgtggt ggattccgtg ga 212

<210> 4241  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-B11

<400> 4241

cgggcaaact taaaccaatg aggttagcaa gggcaaacca ctatattggg tttcaggaca 60

acgagtcaca gatgagcatg gacgccttca gattgattag gatgatgacc tcgaagagct 120  
ctaagaactc ggttctggaa cttttggaac tgtgtatcat gggaaatgga ggggctctga 180  
tgttgcaata acatgaatca atgacagatg ttttgctggg aagccatctg agcaagagaa 240  
aatgcggaat gacttctgga atgaagcatc tagccatgct gatctgcacc accccaatgt 300  
tgtggccttt tatggcggtg ttctagatgg gcctgcggga tccattgcaa cggttataga 360  
atacatgggt aatggctcac ttatgacggc tttgctgaag aattccaaga gcctggatcc 420  
gatcatacgg ctaatta 437

<210> 4242  
<211> 233  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-054-Q1-E1-B2  
<400> 4242

gggcactaca gaaacagcag cttcncagtc gcagcgcccc aaccaatggc gccctaaatt 60  
cgccgggcat cagcgcgccc ctctgttcg caacgagaat gcatcgtcgg tgctcaaatt 120  
cgccgggctg gtggtcggc gattcatccc ccaacgggtc tgctgccggc cgcccatctc 180  
cggttcggc cggaacaccc aactcaacaa gtacgtcatc tcctcctccg gtc 233

<210> 4243  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-054-Q1-E1-B3  
<400> 4243

cagtcagtag ttctattgca gaggcggcaa acctgctgcc taataaaacg tgtccggggt 60  
aactgaaaac ttaaggtgtg gtgggtaatg gtttgctcc gaattggccg aattaatccg 120  
ttccaatttc aaccattcgt ggaattggtt aaagggtaat aagtcccaag ttcaagttaa 180  
ataataagtt ggttggtaaa aaaataaatc aactcaacca caggtcaaca aagtgagtaa 240  
ggtgaattag gcgaactaag acgaccttat tgaggacaag agcagagagc tgactcatgt 300

cgtacgtgaa ctgaaaaagg aatttaaaga actcgaattg gtgtataaaa aggatgcttc 360  
acgtgccacc agctatgcat aggccattca agatgtt 397

<210> 4244  
<211> 213  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-054-Q1-E1-B4  
  
<400> 4244

aaaggaaggg gttttccgaa aattttggaa atcccccttt taacgaattc gttcctggca 60  
aaaccgcctc cgtctcaagg aagtcacaat atgcaatata ccaccaacaa ggaaatagat 120  
gaacggttat gatgtctcaa gtccaagtat agtagtaa at tgttggttca aaaaataaat 180  
catctcatcc acaggtcccc aggtgagtca agt 213

<210> 4245  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-054-Q1-E1-B6  
  
<400> 4245

cgggtgtatg gcaaacctta ctgcccctac aagttctacc acatccggtg cctgaggacg 60  
agccagatcg cgctggagaa gcagaagaat ctggagtgtt ggtactgccc ctctgcctc 120  
tgcaggggct gtttcaagaa caaggacgac gaggagatca ccctgtgcga cggctgcggc 180  
gaggcctacc acgtgtactg catgacgccc aagcgcacct gcgtcccaa gggccactgg 240  
tactgcccgc tgtgcagcgt gcggcgggca agggacggga tgcagaggta cgagaagtcg 300  
atcctgaaga aacaacaaca tataagcgcc aagcgtgcga gccagtcgga cgacgcttag 360  
cctagttgat gatgctattg cttggccaac atgggagtaa t 401

<210> 4246  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-054-Q1-E1-B9

<400> 4246

ctatcaagat gaccgggggc ttgttgcgaa tgatccgcat ctccatactc agtgaaaata 60  
gccgaacgaa ggtgtagtgc agcggatgaa ggttaaacad agcaaagatg tcatcaaacc 120  
gcaggacgat catacccccg atgtcgccat ccacaaagcc cttgccctct ggcaccttgg 180  
ccacgaaaac cgggtatgcc acatccttct ctctgagacg ccgcttctcc aaagaaagaa 240  
cattgtcgtg cagactccgc atagcaccgg ttgcagcatt gagcatatct ggtggtagca 300  
tcgccctacc cgccacatgc accctcctcg agatatactg cggatgaagg ggcccgctct 360  
gagcacggat cgtactcggg gccggctggc tcgcaccctt cttagccttt cttttgcgtg 420

<210> 4247

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-C1

<400> 4247

cgtcatgtca tttgcatgcg tggtgcatcc taaccaggtc accaggatgaa tggaaccacc 60  
aggttttcca aaacttgcac ccgcccgggt tccccatctt ctcccgtgg tcaattctga 120  
gccaaacaaa acttgcaaat gccgcgaca tgtccgagat agtattttat aagtggccgg 180  
aaaatgttct cggattggga tgagagttgg cgtgtggtct gggtatggtg taggtagacc 240  
gcctgccaag tttcatcgca atcggagttc gtttgacgcc ccaacgatta actatagcga 300  
cattatagtc ggtctaactg cggggcgttt cggctccggg aaacagatgc cgggccctct 360  
ctctctcttc tccccctcgc agtctcgcca cagccacact agtccatcct ccttccccctc 420  
ttcgtttccg gagttgtc 438

<210> 4248

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-C2

<400> 4248

gtctttttaca ttaagttttc acttttccct taagcaccaa gccgggaaga aaaaatccct 60

gggtgaatta aagaaagccc aatggaattc aactaaaatt ttggataagg gcttaaagaa 120  
 agcctcaagt tgctcaatta tatcaatttg agttgggatg cctgtttctc ttcacataga 180  
 caacagccat ttgtagaatg ctcttttgct tcacttatat ttgttagagc gtcggcatat 240  
 attttttaga aagaattaa ctctcttggt tcacttacat caatttagag agatgacagg 300  
 aatttgtcat tcacatgggt agtcatataa tccatagataa acttgtagat cgctgaatat 360  
 ggtatgtttg attccttgca atagttttgc gatatgacga tggatgatatt agatcatgc 420  
 aagtgggtgg ttgtgg 436

<210> 4249  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-054-Q1-E1-C3  
 <400> 4249

atgcttgata atagtcttga gatatggagg tgataaatatc aaagtcaggc ttgtacatta 60  
 attgtgaatt tgaaaattgc ttgagttgaa gtttgcaagt cccgtaccat gcacgtatgg 120  
 taaacgtcat gtaacaaaatt tgaaacatga ggtgttattt gattgtcctc cttatgagtg 180  
 gcggtcgggg acgagcgatg gtcttttctt accaatctat cccctaggag catgcgcgta 240  
 atgctttggt ttttgatggc ttgtacattt ttgcaataag tatatgagtt ctttatgact 300  
 aatgttgagt ccatggatta tacgcactct cacccttcca tcattgctag cctcttcggt 360  
 accgtgcatt gccctttctc acattgagag ttggtgcaaa cttcgccggt gcatccanac 420  
 cccgtgatat gatac 435

<210> 4250  
 <211> 96  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-054-Q1-E1-C4  
 <400> 4250

ccaggacaga aaaaaggagt caagttaaga agggcgtcct caattccttg aacctttcaa 60  
 caatttcctt ttggaagggc aaattgattg atggcc 96

[illegible]

```
<210>      4252
<211>      439
<212>      DNA
<213>      Triticum aestivum

<223>      Clone ID: LIB103-054-Q1-E1-C6
              ..
<400>      4252
```

<210>	4253
<211>	442
<212>	DNA
<213>	Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-C7

<400> 4253

cggggtgagc catagctatg gaaggggtgct aggtttctgg ttttgctaga cgataggaag 60  
agacttggct ctgtatacca tgtagattg gatcgatgga agcgttccta ctctccgta 120  
gaggagccgt gtgggtatgt attgattgtg gcagaaaacc tgccttgag tacaagtact 180  
tgccgatcgc taggatacag caggagagaa gaccgaggt tacacgggag agaggaagag 240  
atagaattag gaggtagtta agattacatg acgtgaatat ctctaactct aactctaaca 300  
caccgcatgt acggcggcgc cgcctcttgc gctgacagt tgacgacaac ataacgcctg 360  
gagcacggca gtatgctccc ttggcttga cgcacactgt acttggtctt gttgatcaat 420  
atgttgaatg cgatgaagcc ac 442

<210> 4254

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-054-Q1-E1-C8

<400> 4254

ttcccggggt cacgggtca tgcattgaat tcatcattgc ctttcgtaat aacggagcta 60  
aaggaaacaa cctctatata gttaattgtg gtaagcatga aacactaagt cttccctgca 120  
taaagtataa atcatgagca ccttgggtacc aaaccaagca attggatcgt acttctaaca 180  
cgcttcagca ttttcaactt cactcaatac atgagcgtga gccatagata tagcactatg 240  
ggtggaacaa aatatggtcg taaggatcaa tangagaagg aagaaagtct cgcattaatt 300  
gggcggatca acgggttatg gagatgcaa tcaatcaata tcaatgagag gactacggat 360  
ttccatgcaa caaatgcact aagagctata agtgtatgaa agatcaaact gaaaactaag 420  
tgggtgttca tccaacttgc ttgctaattg 450

<210> 4255

<211> 444

<212> DNA

<213> Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB103-054-Q1-E1-D1

<400> 4255

gggtccacggg caaggaaatt aggaagtcaa agaaagatgt gtatccaaaa aacaagatag 60  
gaaagggagc ctcaaaaggc ttgggaaggc aaaaatcaag gaatccccgg aaataaagga 120  
aaatttggtg aaaccaatga atactgtana gaaagcagct tcaaagtggg tttctaattc 180  
aagtgangag ctgaaagtca atgcatcaat gaaagctcct aatgttgctt ataacgcaaa 240  
ggaaagggaa gctacattat attcgccgat gagagctggt gctgggggtga tcacgaagaa 300  
acaaaaggag catgttatag atatgggaaa atctgatgat tttgtggaag aaccactgcy 360  
tcttccgcag tctgttgcyg cggtactga aaaagtcact gtcagtccca gtgttcgtac 420  
ntaaaaaggg agaagtactt cact 444

<210> 4256

<211> 104

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-D2

<400> 4256

cacgaagtaa gaccttggtg agaagtatga cttcctaata ccgaataatg acttgtcaga 60  
cgatttgcta agcaagtaat gttccggtga tgcaactgcc aacg 104

<210> 4257

<211> 427

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-054-Q1-E1-D6

<400> 4257

ggggccacgg ggaagaggct ccggctgggt ggcggacgga gcaggggtgtg gggtttcgtc 60  
gcggtgtttc gcggcctcgg tgtacgaatg ggtgggcgga tgggatggca gtggggaacc 120  
atggcttaga gacgcgcttg tccgaaatgt ggggtaagtt acgaaagtac cccaccgat 180  
ttgaggcggg tctttcgggt caggggtacc acgggcattt cgcggtgctgg gatttcacag 240

gaggtgggag ttttcgcgcg cggtgtaatt tcggaatagc aaggcgcggg ttgagatgga 300  
 gggagttgtc ggagcacaac gagacanaga tatatcttaa atatttcggg ctaacaaggc 360  
 gcggattgaa gaggcgggag tttcgcagca tgatagacag agacgctagc ttggattttc 420  
 ggcataa 427

<210> 4258  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-054-Q1-E1-D7  
 <400> 4258

cgggacagct gcaagaagag taagaatgga atggaatgaa cgaaggggaa cacgatcttg 60  
 agagagcaca cttacaacaa atactataac ggagttgttg gaaaaccaac aacgaaaaga 120  
 ataagcttga tatggtctta tggaatacat ctcaaataat gaggtgacaa cctgccactc 180  
 acagaaaaag attgtgttga taagaataag gagacgagaa acttattcac cggaaggata 240  
 aaacaagaac ttggatcatt tataaccacc ataaatagca aaatccttag ggaaagcttt 300  
 aggtgaaata taaccoaaga taactccaac gaagagggtg atggatttaa aattttctcat 360  
 tcttaacaac atgtgaatca tgaaacatga gctcaaatta tcaataatga cataatacca 420  
 cctccaatga tacggtagaa agaatt 445

<210> 4259  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-054-Q1-E1-D8  
 <400> 4259

gggtccacgg gcaaagaagg aggtgaagat gtcgctccag agagtgtgga gggtgagaag 60  
 agtggaaga aaaaggagaa gaaaaagaag aaaaaaagat gcagatgagg cacaatacgt 120  
 agagatagta gtttacattg gcttgtcatg ttatttggtt gcagttatgt gggagcttga 180  
 actacctgtt ttatttgctt tgtaccctt gcaaccgtct atggtttggt aggtacgcct 240  
 gatgtactat ctttacgtta ctgccattca accgaaatgc tatggtaatt acagagattt 300

ccctttaaat ttggacaatc agccatgtat tgcagtatct gttatctgta tttgcagtga 360  
 attttgttct catctcaata aatcaagaca catgagctca aattatcaat aa 412

<210> 4260  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-054-Q1-E1-D9  
 <400> 4260

cgggcaaaga gaatggtgaa gatgtcgctc cagagagtgt ggagggtgag aagagtggga 60  
 aaaaaacgga taagaaaaag aagaaaaaga gatgcatagg aggcacaata ggtacagata 120  
 gtagtttaca ttggcttgtc atgttatttg gttgcagtta tgtgggagct tgaactacct 180  
 gttttatttg ctttgtaccc cttgcaaccg tctatggttt ggtaagtagg cctgatgtac 240  
 tatctttatg ttactgccat tcaaccgaaa tgctatggta attagagaga gttcccttta 300  
 agtttggaca atcagccaag tattgcagta tctgttagct gtttttgcag tgaattttgt 360  
 tctcatct 368

<210> 4261  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-054-Q1-E1-E12  
 <400> 4261

acgggtgacc gtaaaggctc ccacatcaac ctcaaggtta cggggcaaga tggcaatgag 60  
 gttttcttcc tcatcaagag atccacacat ctgatgaagc tgatgaacgc ttactgcgac 120  
 cgtcagtctg tggatctcaa ctccattgct ttcctttttg atggctgctat gctccgtggt 180  
 gagcagaccc ctgatgagct tgcgatggag gaaggcgaca atatggatgc catgcttcac 240  
 cagaccggtt ggtgctttcc tggcccttag aatgagcttg ctgcagcctg actgttctat 300  
 gtcgtatgct acgttttagca ctagactaca ctgtgagaag tgccagaagt tgtcaggcta 360  
 tggttctgtg ccatagcctg aggggcggtc tgcaggtgag acaccatctg agtaactgtt 419

<210> 4262

<211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-E2

<400> 4262

caacatatgt gcagcaagga acatgacact gaaataacag ttcaacagac aaaaactatc 60  
 aaacactaat gccccctttg caagaacaag ggaaacactg aaaccaaagc aaaagatctg 120  
 ggtccgattt gcaaaactcg taacaaagaa gaaccaaaaa taagttttca ttacactgat 180  
 gtttaagata gtttcccaca ttaatcataa aatctgcagg attgataaga cagttattac 240  
 aactgcacct acagttgcat tatgcgcaac aacggaaccg tcacagcaat gttacccctc 300  
 ctcgctcgaa gctgcatttc actcagacct caaacatgac gccaaacctg gtaacaagag 360  
 gaatggatat gatggcagca cccagcgcaa cgccaaatat acggtgtgag atggagaacg 420  
 tggcgctc 428

<210> 4263  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-E3

<400> 4263

ttataatagt tcgagccacc attgtggtgt aataccctac tccattgtgt tgggtggtgga 60  
 ttgcctcttg ggctaattgat gaacattaca agggcagaac ggctctctga ggttaaggcg 120  
 ttcttgtgct tggtgagctt gtgtgtgagg tggctctctt caagctccga tcagtcctct 180  
 cactcccttt ttctctctcc cttttcactg tgggtggttag tcctatttat agaggccctg 240  
 gtcctcttcc gaaatatcga gcgggaaggg agccaacaat ggcggggctaa tttgaagggg 300  
 ggtagctagt acaagctatc ctgacaaaag tagtattcgc gtgcacaaag ttctggtggt 360  
 gatgttgttt tgggctccac gatgacctcc gtcttgcaat cctcggctct ggtcttgttg 420  
 caccgaaatg gcaacctttg 440

<210> 4264  
 <211> 445  
 <212> DNA

<213>      *Triticum aestivum*  
 <223>      unsure at all n locations  
 <223>      Clone ID: LIB103-054-Q1-E1-E4  
 <400>      4264

ggggactcgc agagacccta gcagatcgct cgagccctcc gcggcggcgg caacttcagc    60  
 tctctccttc cttctcgatt ccaagataaa tttcattgcg gcctatctgc ttgcttacct    120  
 ctctggcaac gccagcccct ctgcagagga cctgacatcc attcttgagt cagttgggtg    180  
 tgaaattgac aatgagaaga tggaactcat gctgtcncaa gtgaagggca aggacatcac    240  
 cgagctcttg gctgctggta gggagaagtt tgctgcggtt ccatctgggtg gtggtggtgt    300  
 ggctgtttca gctgccgccc ctgctgctgg aggtgctgct gccctgcag ctgagtcaaa    360  
 gaaagaagag aaagtcgtgg agaaagaaga gagtgatgat gacatgggct tcagtcgttt    420  
 cgactaagtt gtggggcatc ttgtg    445

<210>      4265  
 <211>      446  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      unsure at all n locations  
 <223>      Clone ID: LIB103-054-Q1-E1-F1  
 <400>      4265

gctgcagtgc aaagctcggg gttccaatgg aacttgtcng cggctttcga aaccaaattt    60  
 caaccccccg ttgcccaatg gaacctctcc ccggcggtaa ccgttgctac ttacaaagct    120  
 cgccgacggg ctggaagttg cagtgcacgc ttcagcgctc caatggagct ctactgggtg    180  
 gctctcggtg ctgcgttgca gcgcttgacg agcctcggag ctgcgacgca aggctcaatg    240  
 ttagtgctac agtgaagctc tcgacagcgg ttctogaagc tgtgatgcag cggccggtgg    300  
 tggctcaagt cttgcgaggc agtgcttgct ggccggcaacc gttgcaaggc gcttcaatgg    360  
 agccctcatt ggtggctccc ggtgctgcgt tgcagcgctt gacgagcctt ggagctgcga    420  
 acgcaagctc gatgttagtg ctacag    446

<210>      4266  
 <211>      455  
 <212>      DNA



<223> Clone ID: LIB103-054-Q1-E1-F8

<400> 4268

ccgggggtcac gggaggtgct tgagggggccc acgagacagg gggcgcgccc tagaggggga 60  
caccctccta tctcttgccc tcctcgaggg tcttctgacg tgaactccaa gtctctagga 120  
tgatattctc ccaaaaaatc acgatgccga aggtttcatt ccgtttggac tccgtttgat 180  
attcctcttc ttcgaaatac tgaacaggc aataaaacaa caatatgggc tgggcctccg 240  
gttaataggt tagtcccaa agtaataata aagtgtataa taaagcccg aatcattcaa 300  
aacagataat aaaatagcat gaatgcttca taaattatag atacgttaga gacatatcag 360  
caactccttc ccctattccc tggagatgca acgcaggga acaccgttcg accgtttccg 420  
gtagagctct ccatcttgga tgca 444

<210> 4269

<211> 262

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-054-Q1-E1-G1

<400> 4269

ccacgattcg cattggggcgc gtgacgtggg ggctcgtgtgt gggatggcct gaacatgctt 60  
gcgtcatcct gtagttgata gtaaagaggc agccagtgtt tcccttatta ttaaaaaaga 120  
gggattcgca ngggcgctac ttatttacta agtggacttg ggtcgcaacc tgcattggcg 180  
cacaccccat gatcacgng tggaatatgg tcgccccacc tgttctcatg cctctgactc 240  
gctcgccaca tgtcncgcat gc 262

<210> 4270

<211> 356

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-054-Q1-E1-G2

<400> 4270

gctgcatga aaccctacgc ggaggaaaat agggcccgga aaaccaaga atgaagccgt 60

ttaaaacaag aatttgagaa aaaatgaatc ctcaatttta aaaaccggcc ccaaaaaaaaa 120  
 aaggaaaacc caaaaaaagg aaggccggaa tatttatata ttaattaaga aaaaaaacag 180  
 gcaagttagt tagttggtgc cacagaatgc aatgcatgct cncatcatca tcatcatcat 240  
 catcatcata atgtgatcag agctgagacc tgatcgatgg caaatattag tacttagatt 300  
 agtactcctg ettacacaag tccagtaatg agatgcctcg gttgcttcgc ttctgc 356

<210> 4271  
 <211> 113  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-G3

<400> 4271

acatcatcat cgcccctgcc atctaccacc accgctatcc gccacgctcc gaatccgtat 60  
 tcatatacca ccaccgattc atataccacc accgaatcat atccatatca tat 113

<210> 4272  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-054-Q1-E1-G4

<400> 4272

aaatgaatac gaaaaggatg gtttcatatt ggatgatgcy gataaaaaa aggaggagga 60  
 ggaaaaggag gcaaaacctt ttgatgataa aagaccagc aagaaaaaga aaagaaagaa 120  
 aaaaaaaaa acggaggatt tcaaccttga taaggatgac tacatgttgc tcaaggataa 180  
 taacattacc ggcactcctc gtccgaagcc tctgaaaac aagtttaagc ggttgaagaa 240  
 ggcaagacgg gaatctgaaa tggatgggcy ttctggcttc tctgatcatg acggagcaag 300  
 aaaaagccgg actgctgagg agacagttcg tagctccttg tttggtaatg aagaaccgtt 360  
 tgaggaagat tttgtcgagg aagatcagca ngtagatgaa gatgaagttg gtgaagatga 420  
 tatggatgat gaaa 434

<210> 4273



<211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-054-Q1-E1-G5  
  
 <400> 4273

```

cgggtccacg ggaagaggaa gtgtgaagca ctctggccaa tttccgcat ttctcatcaa 60
agaagccgtt acatttatga tcttttctat aaaaggaagg agatatcaaa ggagctgtat 120
gagttctgcc tggaccaggg ttatgcagac cgtaatctga ttgcaaagtg gaaaaagccg 180
ggttacgagc gcctctgctg cctccgctgc atccagacc gagaccacaa ctttgcgacg 240
acgtgcgtgt gccgggtccc caagcatctg agggaggagc aggtgatcga atgcgtccac 300
tgtggctgca agggatgtgc cggcggcgat taactgacta gttatgtgta ttcatcatgt 360
gtcgccgaat ccatggtggc tctaagccaa gactctaga tgtttcttaa gcgtgttctc 420
tggtaaagaa cagatcgtcc tgtaatgt 448
  
```

<210> 4274  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-054-Q1-E1-G6  
  
 <400> 4274

```

gccacgggccc aacggaactg ctttctgtcc acggcgggca cacggccaag atctcggagc 60
tgtcgtggaa cccagcgag aagtgggtgg tggccagcgt ggcggaggac aacgtgctgc 120
agatctggga gatggccgag agcatataca gcgacgacaa cagcaacaac gccaacagcg 180
cctcgtgcct gtccacataa gaagacgccg ccaaccaact tcttcctga tgtgtggacg 240
atggccgatg gggacatggc tcgttcgtag tctttgggtg gacgagtcgc gtgcggttta 300
cttgtagtgc ctcgtgcggt ttcgtcgctt aattagcagc tgctgctatc gtttggcgcc 360
tagatcctgt agacatggat ggatggagaa gtgactctgg aatatttgta cgtcctt 417
  
```

<210> 4275  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-G8

<400> 4275

gagatgtgtc actcgcgcgc gggatcacgc gcgacggcgc ggtcgggcag ggtggaggaa 60  
 ttcgccgacg cggcaacgga ggaaggcggc ggtccaaac tctccgcgct cctctacgac 120  
 gtgtcgcagc aggtccagga cagcctccag agcatgctga agatgacggg cgagatcgag 180  
 cagtgcagtg acgagatcga ggtggagatc gagcaggcca aggagggcgt ggctgacaag 240  
 tacaggggtgc tcgaggagga gaaggaaagg ttccagaagg tggccctcgc ggcgctcaac 300  
 atcctgagcg gtggcatctg aagcctgcac caccttaata ccaacaaaga caatcctgat 360  
 aactgccccg ctctgtagat caccgttcat gtgcaagcct agcaatgaac cgccagttgt 420  
 actcctccat atg 433

<210> 4276

<211> 131

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-H10

<400> 4276

cgggtacatc gaaatctcta ccactagata gttcacgcta aatccgatca gcgaacctat 60  
 tatggatatc ttgtacttgt gactggcctt ctacggagca tccactccgg tttagatata 120  
 tacaggatac c 131

<210> 4277

<211> 357

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-054-Q1-E1-H12

<400> 4277

tcagtatcaa tcaactacatg acaccacaca acagatatgc tgctgtcagc agtcctctct 60  
 aaatagacac tgcaattatc gtataagtac atcattgctg ctgtcagcag tgctctctaa 120  
 atagacactg caattatcat gtacatcatt gctgtgcaa tgaaccatta agaattattt 180  
 aaaatctagc ctaccatctg cgttgtcgtc aacatagggt tgaggcggag ttacaaaatc 240

tgtatgagaa accgagggat tgtccgagtc agcgacatct ttgttatctt cagagctgtc 300  
agaagcatct gagatggcgt cacctgattc tgaatgtgtt ctgtccacat atgcttc 357

<210> 4278  
<211> 318  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-054-Q1-E1-H2  
  
<400> 4278

agcggggcgtc ttgaacaagg cggcgctaca gcttggagac taatgtcgtg tggaatatgt 60  
acattggctc cggcgggatg cagaggagg atgtcacgct ccggacatac gcgccggtgg 120  
ttgttacttc tggcggagtc tagactaccc ctacagatga ctactagtct tttctgtgca 180  
ctttgtctcc actcgtgcgc aactgtaagc aacttcccat tcggtcacac atcttgaaac 240  
tactctaagc tgatcaagct taactttgga gttctatccg aatgggctct cggattatac 300  
ggaattcctt attgatat 318

<210> 4279  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-054-Q1-E1-H3  
  
<400> 4279

ttcacggggc cacggggacg aggacaatga cgagtgaagc ggacaatgcc ggaactgctg 60  
ttccaaaaac caactgaact gttttccggt ggggtcataa ggagcctatc aatctcaact 120  
agaattatcc caagtttcac ttcacatcgt gatgttggtt tacctttttt cttgtcattg 180  
tcctgctata acggatagcg ctccctgttg gcgccgctgc cggcgggggtg cccttggtgt 240  
ggagggtgta tgctcccagc gccgggggtgc ccctgcttgt acctagatgg ttactctttc 300  
cgtccacatc tgtcaccggc taacattgtg ataatatcag tctgggtaat gttagaaaaa 360  
aaaaaaaaa aaaaaaaaaa aaaagcggcc gctc 394

<210> 4280  
<211> 389  
<212> DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB103-054-Q1-E1-H4

<400>       4280

atttcagtga atttgatgat tgttctttaa atttgcacatc tgcggatttc actattaata   60  
aacctatggg aaggattaat tatgttctta ttgttgcaaa taggaattat gtgcctatat   120  
atttcattgt tcttgatata tattgcaatc ctacacgtcc tattattctt ggtagatctt   180  
tccttagaac gattgggtga attattgaca tgaaagaagg aaatattaga ttccaatttc   240  
ctttaaggaa aggtatggaa cacttcccta gaaataaaat taaattacct tatgaatcta   300  
ttatgagagc cacttatgga ttgcatacca aagatgacaa tacctagatc tattcntggt   360  
tttatgccta gctaggggcg ttaaacgat   389

<210>       4281

<211>       408

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-054-Q1-E1-H5

<400>       4281

cggccaatga aatgcatttc ggtgacggcg ggcacacggc caagatttcg gagctgtcat   60  
ggaacctcac cgataagtag gtgggtggcca acgtgacgga cgacaacatg ctgcatctct   120  
gggagatggc cgtgagcata tacagcgacg ataacagcaa caacgccaac agcgctcgt   180  
gcctgtccac ataacaatac gccgccaagc aacttcttca ctgatgtgtg gactatggac   240  
gatggggaca tggtcgttc gtactctttg ggtggacgag tcgctgtcgg tttacttgta   300  
gtgcctcctg cggtttcttc gcttaattag cagctgtgc tatcgtatgg cgctatatc   360  
ctgtagacat ggtttgatgc gtaagtgact ctggaatatt tgtacgtc                   408

<210>       4282

<211>       427

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-054-Q1-E1-H6

<400>       4282

ggggaagggg tagacgataa cgggtggctg cgtggtaacg catagctagc atggcagggt 60  
cctgctactg atgagcagat gtggctcagt gagccacgg ggaaagagta agtgccactt 120  
tataataatt gcattagttt gcttgtcaca tgctcattct ggttggttaat tattgtgcgt 180  
gtcagatgct aatagttcat tcttttgcag caactggata tattctgaag ggggccgtat 240  
tcccaacggc ctcatcattg tcttgctgat gtttactgg cgggggttgt actgtccgga 300  
tccattcaag caccgatgc atcaggtctt ggacacgagc tgggagcact gcgaagcagg 360  
gctccatgct tgacatggga cgcagccaa ggccgtgatg accactctca gggtaggttc 420  
gcttcat 427

<210> 4283  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-054-Q1-E1-H7  
<400> 4283

tccgggtcca cgggtaggat ttcgaggatc gcgaaatgca atgcaataaa atatgatatg 60  
catgaatgat ctatgtataa cattccaaat tgaaaatttg ggatgttata tatgattgtg 120  
ttttttatgt tttaattagt gtttttgcca agtaaagcct ttaggatctt cttgggtgat 180  
tgttgtttga tcttgctgaa aaaaatagaa agtatgcgct cacgagaata aattttgttt 240  
ttttaccaga gagcgataaa ctaccaattc caactgaagt ggatcaatat acaaattatt 300  
taagtcctcc taaattttta gaaatttttg agttacacaa gtattccaaa cctgcagatt 360  
gtataaaact gttctgtttt tgacaaaatc tgtttttcct gtgttggttg cctaattt 418

<210> 4284  
<211> 124  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-054-Q1-E1-H8  
<400> 4284

aaaatgatat gtcgagaaag atgatagagg tgaggaggag tggggcgtgg tggtgactgg 60  
tggtcggact gggctgatgc atggggatgg actgcgccgg caacggccac catgccagat 120

tggtt

124

<210> 4285  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-A12  
  
<400> 4285

ccctcgagaa accatttttg tctttttgat agttgcattg ttgcagtaaa ctcggaacaat 60  
agcaagagaa caaaattctg ataacaattt tttaaaaaaa aatctacaac tagcaatact 120  
gctacaaatc tggaccagtt tagacctcgg accacaagtt acggctaagt gctacagtta 180  
tcttcggaac cttgtctggt caaggaagtg gcggttgga gccttataga agcatcaccg 240  
cagatggccg tcaagacatc aaactctcct cacgttgtct ccatggataa ccaccgcgcc 300  
ttcagtcatc aggggtgcaa gagcaccgcg gagttcgtgc atatgaattt ccattgagct 360  
ctgcttctc agttctcca gcaactcaat catgcgcac gaggggcctc caagctgcat 420  
tttccccg 428

<210> 4286  
<211> 149  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-A2  
  
<400> 4286

cacctgggca tccattgtca agtcagaact ggggacatca aaacgatcgg gcacagcaga 60  
tcgtgggcac acatcacatc ttgcgaaggc ttggaacagg atgctcaata atcatccaaa 120  
cgacagagaa ccagcagtga caactttgt 149

<210> 4287  
<211> 363  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-A4  
  
<400> 4287

acgttccact atcaaaaaat atataagaga aacatacaga ccacgtagct ctgaatcact 60  
tatatgcgtc ttttacttgt ttacatcatc atattatccc tttggagtgc gatatatggt 120  
cagttgccaa tttttcatat cctaagtcgc ttaaggtttc atgataaaag gcatgagaga 180  
gcacatctgt aataggtgca tgcccaatat actgttttaa attcactata ttgtttgtgt 240  
tactttgtgt ccacagccta ttaacaatg gggctcttac ttaaaagcta ctgtgatgtc 300  
tacctatctc ttgtctgata caatcctgct ttaacaagt gccgagattt tgcacgtca 360  
cca 363

<210> 4288  
<211> 357  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-A5  
<400> 4288

tcttttttta attttatata gaacatagtg caacagcctg ttgaatggta ccaaaggagt 60  
ctgggcagat tcgatgaaca catagaacta taaactggat ccaactgcaa tcagtgtcca 120  
gaacacgcaa agccgtacag attcacagtg caggggaaac acggagttac gatgacacaa 180  
acggagataa cgggtggcagc agggggactc aaacgttcac cagccacagt tagtacgggt 240  
acttcatggg gaacacgaag gacacacaac atggattgcc tttctgatag gcaatgcagg 300  
gtttgtctc ctcttcagt tcccgcgagg tagcacctcg tcgccgcagg ctttact 357

<210> 4289  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-A6  
<400> 4289

aataaaacag aaagcagcag cctgttgaat ggtaccaaag gagtctgggc agattcgatg 60  
aacaaataga actacaaact ggatccaact gcaatcagtg tccagaacac gcaaagccgt 120  
acagattcac acagcagggg aagcacggag tttcgatgac acaaattggag ataaggggtg 180  
cagcagggg actcaaactg tcagcagcta cagctagtac ggtttcttca tggggaaaac 240

gaaggaaaca agacctgcat tgcctttcta atatgcatg cacggtttgg tttcctcctt 300  
 caattcccgc ggggtactat accgttaccg caggctttac tcacttggcc atcatgacct 360  
 tgacgaactc ctctacttg attcgg 386

<210> 4290  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-A7  
 <400> 4290

atctgcaacc cttttgagat ttaattgctg catcgctaca atcgggtcag ctacagatag 60  
 attacactac accggcagct tacacaccgg agcggactca tgcacacaat acaacagcac 120  
 atcctcgacg atatccgcc tctctctcgc attcgagaat ggcgcgcgct cgccattgcc 180  
 gtcccccaat cgggatttta tctcgctatt gctacggtac ggccgcgcgt acccattagg 240  
 tcgacgtcgc cgcgatcggg ctggcgacca cgtggtggtc gctggaccag actagccgcc 300  
 cgaaccggtt ggtgcccgc ggcacccgc ccgcctgaa acccaccgtg tagcgcaccc 360  
 tctcgctgga c 371

<210> 4291  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-A8  
 <400> 4291

cccctagagt attttttctt gtcttttttt tattttatct tttttttttt tttttttttt 60  
 tttttttttt ttttcagaaa agccggaaga caatagagtt tttgaacatt accccgaaca 120  
 atacacataa aaggatcgag tctccgttac acgaaatcct ggaggacgaa tgcagctatg 180  
 cacgcaggcc catggatctt ttattttatg agctaaaatg gcttcgagcc gacccaaggt 240  
 taccatggag actctacttg ttctgcagca aggacaccgc tgccttatca gtgaaccagg 300  
 tgaattctcc atctttagc acagccatct caacaggcag caggtctgac gaggtttgct 360  
 tgtctgaaag cgccttctgc accgctgccg cctttccagc tccagtcacc accatcgcaa 420



cg

422

<210> 4292  
<211> 121  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-B11  
  
<400> 4292

gcagtaaaact cggacaatag caagagaaca aaattctgat aacaattttt tataaaaaaa 60  
atctataact agcaatactg ctacaaatct ggagcagttt agaggtcgga ccacatgtta 120  
c 121

<210> 4293  
<211> 154  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-B4  
  
<400> 4293

cacttgcaga ttactactac cgcctgcagg thtagcatat cggttgcaca gaaatgacgc 60  
cagtagatcc aaacgggaaa tcgctgctac acccgcgcgg attcacaacg tcaccagcgg 120  
acgccacacg ctgaggaact ccagctattg ggca 154

<210> 4294  
<211> 352  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-055-Q1-E1-B5  
  
<400> 4294

atgcctggcc tagcaattct ctgaaaagct ttattacatg ttcacgcagt cgtaactcgt 60  
aacaccgtgt cgcaccagca agcggagcgc ccatacaagg tgaataacgt atggctcgcca 120  
gatgagggtt tcagagccta agaccaggac cttttctgag cctagaaaca tccagaggta 180  
catgctcgaa atgtcatgag cagcatgtgt gttttgttac attgtaaaat caagcctctg 240  
ggagcttgaa gatggctcgg aaaggtttcc agaactccac ctcttcagca tctccagagc 300

agccttcggt tgaatccatag gtacatgtg accaacatcg tgaaccttca ag

352

<210> 4295

<211> 217

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-B9

<400> 4295

ctcgtgtgct gaatcgctcg cgcatactg gatccatccg agcgggctcg cgggcgcagc 60  
gcgaggctat agcgagcgag agagcgatag cgcgggtgcgc gggcgtggct cgctcagcgc 120  
gcgaatgcgc tcgtcgacg gatgcagggg agagaagggtt cgcttggtcg gttgatcgat 180  
aaatcgaagg aaatccgat gagcgatgaa tgcgcgcg 217

<210> 4296

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-C12

<400> 4296

ccctcgagta tttatctttg tcttttttaa acaaacatct attgtgatct gagattttaa 60  
acaggcatca tagatgcttg gggtaagtac agactgcagg ctaaaccatcc caatccaaca 120  
acggtcgagt gccgatgaag cgaagaaact acaactaaa ctgcctcact ccagggcagg 180  
gacgacactt gcaaggaaac tactcagaga agacggcact aatctactgc atctagaaag 240  
tccttcgaga aagcccgtt agggcgacaa cgacgaagat tttttccct gactgcaaac 300  
acttgacag agtttcatcc gtcatacatc actcgtcacc ctctcgtcc tcgtcgttca 360  
cctcggactt ggacttgcg gaatcaccag acgccgtggg gtctcctcg 409

<210> 4297

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-C3

<400> 4297

aatacccctc tttggttcat ttgaagagaa attgcagtga atagtattca gcatgtaacc 60  
tgcattcaat ggatgaacaa cgttgcttgc tgtttacatc atcaagggtt gccaggcct 120  
cgcttggttat ccagatgtca caactaccgc gagtcaagac gctcttaca cgcaaacacc 180  
ttcactacat atgaggcctt ctgcacctga ttataaccac tatatataca ttatcatgtg 240  
ctgcacaggt tgcattctcc attcctgctc cactccttga cggcccagca aagcaatgga 300  
ccaaaacatt gcctccagag cttatagctt catctatgaa accaaagcat tcatcagaat 360  
gctttaacag atcagtgtct ggg 383

<210> 4298  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-C5  
<400> 4298

cccacgagta tttttttttt tttttttttt attacccctc tttggttcat ttgaagagaa 60  
attgcagtga atattattca acatgtaaac tgcattccaa tggatgaaca acgttgcttg 120  
ctgtttacat cataaagttt gccaggcct cgcttggttat ccagatgtca taatacgcgg 180  
tcaagacgct cttacaacgc atacgccttc actacatatg aggccttctg cacctattat 240  
aacactagta taattatcag tgctgcacag gttgcattct ccattcctgc tccactcctt 300  
gaccgcccag caaagcaatg gacaaaaaca ttgcctccag agcttatagc ttcatctatg 360  
aaaccaaagc attcatcaga atgctttaac agatcagtgt ctgggatatc aagtact 417

<210> 4299  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-C8  
<400> 4299

ccccacgagt attttttttt gtcttttggg aaggacagtg acctctctct ctatattgga 60  
agtatagaac aagggtgcaa acccattgtc gtcactccaa accaccaag cacaacaggt 120  
ggtcgcaaat tacacgcgcc attaatgcgc agcttgacc agcgggtttc aggtcaaggc 180

caaaactgagg aaaagatggc gtccggtccc cgacagcgac gcaccccgcc gccagaaaac 240  
 aaatgcagta ctgccccgagc tcgaaggagg tttgaacggg gcggttttat ttcgacttcc 300  
 tgcttggttg cttgctttac tgaacgaagc acgaacccgg gccgaccggc ggcctccgag 360  
 cgtagtagtt cgtgacagga gccgcggcga cccacgggtg gttcagc 407

<210> 4300  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-D1  
 <400> 4300

tcgagtattt tattttgtct ttgtcaatgt gcaaatatct gcgtgcgag aacagcaaata 60  
 ggcagctaaa gctgaaagaa aacaagtgt cacaagtaca catcatagga gaggtcacgg 120  
 aggggttatg cttactagga agacggctag catacgcaat tgaggacaaa ggattactgg 180  
 aaagctttcc cgaattggcg catcacttta gagcatcgcc gagggccgca agcattccca 240  
 ggctctgctg caactcagcc aacctcactt tcaaggcctg gacgctccgt cgggtgtacat 300  
 ccgtgtaggc atcgttgacc aaacccgaaa gtctttcagc acataacacc atcgagctt 360  
 ctgtgagttc aagactcaca ggttgctggg atccaaaaag 400

<210> 4301  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-D12  
 <400> 4301

ccccctcgag tatttttttt tgttcttact cagtaacaag ggtaccaata tgatagatac 60  
 tactgtcca tttaagtttc aacctcagac agatctaaat gagatacaat ttgagtaacc 120  
 aacatctaaa tgcttgatag gttggcggat aaagcaaata ggggcaagca attacgcctt 180  
 ctgggtgtag acataggtga ggccgcactt gccgcagtag tggcggtcga agtggttggc 240  
 catgaagacg cccgcgccgc actctgtgtt ggggcactcc ttgcggagga gggtcacctt 300  
 gccagtggcg tcgtccacct tatagaactg cagcacggag agcttcacct tcttgtgctt 360

gtgcttgatc ttcttgggct tgggtgtacgt cttcttctta cgc

403

<210> 4302  
 <211> 323  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-D4  
 <400> 4302

gtgcagcaca gtggacacat attacacaac attatatggg gcactacaat ggctggaatt 60  
 tggaaatacg taccaactac tgaactgaca tggacacgat atcacgtac actatgaagg 120  
 gtggaataac atagttcttc atgtcccaca agtaacagag cgctaattta ttattacaac 180  
 caccatgcct ggtcaaacta cattaaggac tgccactgtc cctgcctgt gcatacacac 240  
 agggagcgag tgaacggggg cctccaccgc aaccatggta gtgacaccga cacctactca 300  
 catctacatg agcttgggtc acc 323

<210> 4303  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-D5  
 <400> 4303

acaactagtc tcgagtatct tttttttttt ttttttagtgc catcaccata tattcgatat 60  
 ataaaacgtt accacaatct gctttctgta cttaatagag cgacattagc acatagcaga 120  
 tctacaaagc ggtaaaggac tccaacactt gtgcaagctc aactgcagat atttcttgaa 180  
 gtttcaacct actaccaaag aattaatgga actatgcctc gcggtatgta catcgctgca 240  
 gatagaaacc ataaaaactg gggttcaacg tcagaactca tttccttctc ttcccacttc 300  
 ctatatttgc tcacttgaaa aagaacttcc atatcgccct gtcacacacc tcagtcaaga 360  
 agtggccacc aaggacacct tcctcttcc 389

<210> 4304  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-D9

<400> 4304

tttggtgca taaacataca gctggttcgt ctgaacattt acatacaacc caaaagggtca 60  
catcgcttcc cggaagaga aacaatataa acaagagcag gaaaacccaa aaggtcggtt 120  
cgttcttttg atgatccctt ctaagagaaa gtagggaaaa gaagaggaag aaaccacgaa 180  
taaagatgat acaagctcag aagacgtttt cttcttcaca gcacaccaac atcactgcaa 240  
ggaagtgtct aagaggtaaa cactggacac tcagttaccg tcctcttctg gccagtaggt 300  
gctgttagag atgaacagag gtcagatgtc ttcagaacgc tcaacctctt caccgaagaa 360  
acaaacatcc cccagaggga catcgccaaa cagcaa 396

<210> 4305

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-E11

<400> 4305

gatcggccaa cagtgtttca cattgctacc actacagcta aaatctcgat aatgatacag 60  
ttgatccatc ttacaacacc agaagaaaac aatcctgagg atacacaagg caaggatgta 120  
caaacgtaaa cagcagtaca gcacacattg atagaccttc gaatcgaacg acaaatecta 180  
gtgcttgctt gacatgcagc gccagaaaaa tagagaagat agagaaataa ttctgattat 240  
tccaagttga agcaactcct gcaacatttg gtatccgaca agcaccact catcacatag 300  
gctaaactag ttcgctacaa taagctcatc ttcaggattg gcattttgag gtagcatcgt 360  
caattcatcg tcagctgcac tgaaatgata tttctctcca acaactcca aaaacctggt 420  
aaacttcaaa ca 432

<210> 4306

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-E12

<400> 4306

tttaaattaa cgaaatgctt acaacagata tggaatccta atattgttac aaaataatca 60  
 tgctactcat ggaggacaaa aacagtgatg cacagttgta atttgagcaa cagcatcacc 120  
 atatgtgagt acaagacatt aaccacaaat ggagaatcca tggtagcatc ttcacaagtt 180  
 cagaagagca gaagctgcag tataacaggc tacaaggata catatcattt atcactttgc 240  
 tgctccttca aacaagtgct ggatgtgggc tacaacatcc tctgggggtg atttgatgta 300  
 caaatcacgc ccagtttcag gagaagactt taacttggca attaaagagg cgtaaactgg 360  
 catcactgtc tctccaccg ctg 383

<210> 4307  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E2  
 <400> 4307

tcgagtactt ttttttgttc tgtttttttt ttatttttat tttttttttt ggcacatctc 60  
 aataacaagg tgcattgtga ggaaccaggt aacatgaaaa ccacctgctg cttccaattt 120  
 gtttgtgcta tcaacagcca aaaatcacga ttagcagttg gcattttgat gatcatagga 180  
 aaagctaaaa agcattctaa cccgatacaa caattggcat ctacatatgc taagcagcat 240  
 aacaatttca ctggactaac atccccacaa actaacacca agcttgtggc aaaagctagt 300  
 tacttgttac tgatccccga acaggcacta accccaaga aaataaggat ttatgccacc 360  
 aaaatgttat cgccacgtgt tggaa 385

<210> 4308  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E3  
 <400> 4308

gtactgcccc gctcagta ttttattttg tctttttttt tttttttttt tttttttttt 60  
 tttggcacat cgcaataaga atgtgcatgt tgaagaagca actaaaacga caaccagctg 120  
 ctgcttccaa tttgtttgtg ctatcaacag ccaagaatca agattagcag ttggcaattt 180

gattagcata ggaaaagcta aaaagcattc taaccctata catcaattgg catccaacta 240  
 tgctaagcag cagaacaatt tctactggcct atcaccctca caaactaaca ccaagcttgt 300  
 ggcaaaagct agttactttg tgctgatgcc cgagcaggca ataagcccca acaaaatagg 360  
 gatgtacgcc accaaaatgt tatcgccact tgttggagag cttggctcca aacggattgc 420  
 tccc 424

<210> 4309  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E4  
 <400> 4309

catatcataa cgcttgatca gataggcaca gacatgaaca taagacaaga tttgccatca 60  
 acaaactaaa tattttctctc atatgtgtcc tcacaggatc gcaagagcaa cagaaacact 120  
 gggaatcctt tttacatgca tcagacccaa aaacaaagtc tgaaagtctt aatgccatca 180  
 caagattttt ctgcttaacc acctagtggg acttgggact taacatggac cataaaagag 240  
 gccatccaca acgaagtctt ttaccaaaga gccatccctg gctccatgga ccacaaaagc 300  
 ttggagattt tcgggaagcc acgactcaaa agcttggaga tctccagcat cccaaccttg 360  
 tcctccac caaacaagct ttga 385

<210> 4310  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E6  
 <400> 4310

ttgtcttttc aaatcaatca ctatcatcat ggacagatgt caagttaggc tattacaatg 60  
 accacagaac atcatcagc atggcacata agccacgcca tgacattcag tattcgacac 120  
 agtaaggaca tcatcagtaa ctaacggttt cacattatta gcaacaaggc aactgcaatc 180  
 aactggatt tacattgtac aggaagcaca gaaacctaaa tcaggatcta acgagtcaca 240  
 agcaagcata caggttccta gtatatgcca gcagtagtct ctaactgtca atgccaggtc 300



cggtttgccc ctgtgtctgc agctgacctg gcagttgggg ctgcagctgc gcttgtgagc 360  
 cccccctgtg attgtagaga tgtacctgag gttgggggttg gg 402

<210> 4311  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E7  
 <400> 4311

ttgtcttgtc ttttttttta tttaatatga ttcattgtaa tactcttaac ttgggagccc 60  
 ccacgatcta attcgtcatg aaaaggctcc aggcacgcat actcgatata gagagataaa 120  
 cactgctgga gctggactca tcgttccggc tttgtggtgg cctagtcttg tgctgtgaca 180  
 ttctgcccct cctttgtttg tgatatgcca taattttgac gtgagtacag tttcactggc 240  
 atgttgattc tggaactacg actggacatg tgggaaaaac tagtataact tggtttggga 300  
 ccgcaacagg cattaagccc catccgtata cggatgttcg ctacctaaat gttctcgcca 360  
 cttgttgc 368

<210> 4312  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-E8  
 <400> 4312

tttttcttgt cttttcaact tcaccagtat gctacgtgca agttgaccgc atatcagcca 60  
 gcacatcttc actgcatcat gtaactagaa aggtgcaagt caccatgaat agtaagtact 120  
 aaatactgat aagatggtga taactgataa taggataatg ctaaaacgaa gggttaaagt 180  
 ggaatggaac tgggtgtacat aaagtttttg ataaccagtt caggtgccaa acagaagtag 240  
 tattccaagg ttgaagcagc aactgaaaga cggcactaca caacttttagc tgagaagagg 300  
 ccaccatcga gcaaatgcgt acacatagga tcagagcaag tccattcatc ctgagctact 360  
 caagatgctt tgcaagtga ttcgcttat gtcgatgggc tccgagaacc ttgaaattgg 420  
 tcaaatgttg cccctgacgg aacatctccc a 451

<210> 4313  
 <211> 281  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-E9

<400> 4313

tttgttttta ttgttttttt atctgttatc gtgtcgacac tagtaaactg cattttcgca 60  
 aaaagcatgg atttactgaa atgggaatag tgaacaagt gaccttcacg cccaaccag 120  
 acaaacgctt tccagttcat ccgacgggat ggatcaggct gggaaatgcc caatacagtg 180  
 tcaccatgga ggggtttcatc tgagcggatg acgggagagc tatcccagca caggtcgacg 240  
 gattgcccac ccaaccgtag tatatgcacg acggggggat g 281

<210> 4314  
 <211> 295  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F1

<400> 4314

cattatgcca gcaaaagcac tgatctaatt caccggcatc tggccgatcc gtaacaatt 60  
 aggagataag ttaggcaaca cagtctggtt cagttcgatc gccgccaggc atagaatctt 120  
 ctcaggccta ccatctacat actccagcag atccaatcca ccggagatta gtatttacag 180  
 ctttgtgagc gatttagaca ttctctagt gaaccgcaag gagtgcact gatggaaacc 240  
 tgacaccaga aatcaaagaa ctctcagttg agttagaaag gccgaccaga agtcc 295

<210> 4315  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F10

<400> 4315

cctcgagtat tatttttgtc tttttttttt ttttattttt tttttataat ccaagcaca 60  
 gcagttgttt acacgattgt atcacatgtt aaacctacat cccatcagaa aaagtaacgg 120

ctaggcccat aacatacact ccatgcaacg ccatcaagtg gccaaataca ccagttatca 180  
taattaacaa ccagcatgat ctgacttcaa acttcatgcc gtacgaagggt gtggagaaac 240  
caatatgaca ccatcacctc ggacaaaaag aaaggggata gtgcgtttcg tggcgcgac 300  
aattttcttca tatgtttcat catctatctc aacagttgtc acgacctctc aacatctcca 360  
agtatcatgt ttaaagtgtg atcatacgca tggagcttgc cgcgc 405

<210> 4316  
<211> 425  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F12

<400> 4316

cctcgagtat tatttttgtc ttttttaatt aaccattgta atagctgaaa ttattaatgt 60  
agatagacat tatgccagca aaagcactga tctaattcac cggcagctgg ccagccgtaa 120  
agaattagga gataagttac tccacacagt ctggttcaga agatcgccgc caggcataac 180  
atcttctcat gcctaccatc tacatactcc agaaaatcca atctactgga gattactatt 240  
tacagctttg tgagcgattt agacattcct ctagtgaaac gcaaggaatg caactgatgg 300  
aaagctgaca ccagaaatca aagaactctc agttgagtta gaaaggccgc gcacaagtcc 360  
agaaagagga gctgtggccc actgactctt tgcaaatcga ggaggtatct ctccgtccct 420  
ggttt 425

<210> 4317  
<211> 311  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F2

<400> 4317

attattgatc tcggtgacag aatgcagcag tgaacatgga agaagcgtaa actcaacacc 60  
atccgtgtgt gacaatactt tcaaatttta gtacacgaga tatgacacaa atcatgtggg 120  
atgcacacga tgggtagccc atgtaaataa aatgacgatt ggatttaact gcattgcagt 180  
tcataagatc ctgttcaatg gctcccggtg tgatgaactt ctcaatggca tggaccgctt 240

cgaaggcgac cgggatggag aaagttatgg ggccaaccaa taggtcgaga gatttggcga 300  
cgacctcatc t 311

<210> 4318  
<211> 288  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F3

<400> 4318

tcgagtattt tattttgtct tgttgaactg tcaaagacga atctttgttt ttctttttgc 60  
atcttgaacg ataaacaaag aagtgttttt ttctctgtct tcatagatag atgctactca 120  
tcattccatg cacaggtagc ctctgtagtc gtcgtcggtc gtaatgggtca cttcacgtat 180  
taattggcgc catatcggtc gtaagggcgg aagccgtggg cgagcgcggc gcgccaggac 240  
ttgtctatcc cgggtgaacct ggcgacgac tcgtgcgcgt cccagcgt 288

<210> 4319  
<211> 403  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F4

<400> 4319

tcgagtattt tattttgtct tgtcttttgg caggggaagga gaagacttgg aagaggggaa 60  
gaagataggc agtagtgttt tctgttcttt ttttcgatgt cccagtttac agactgaagc 120  
catacatatg gcacaacgac tggggcacac tattacagtc aacgaaccca ctctaggccg 180  
gacacettgc tattgggctt aagcttcctt tttaatcttg gctgtagcag cacaccatct 240  
tcgcttccag tctctggcgc aggttcactt gtcttggcat ccttgtgtgt gctaacagag 300  
tccgataatg tgatcttgat tccaacaag acaacaatag aaatgcttaa ttagaaacgg 360  
acaatacatt atcataacca gcgtccaaaa cttggatgca aca 403

<210> 4320  
<211> 390  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F5

<400> 4320

tttgtcttgt ctttttttat ataccatct ttggtctcat ttgaagagaa attgcagtga 60  
atattattca acatgtaaac tgcattccaa tggatgaaca acgttgcttg ctgtttacat 120  
cataaagttt gccaaaggcct cgcttggtat ccagatgtca taatacgcgg tcaagacgct 180  
cttacaacgc atacgccttc actacatatg aggccttctg cacctattat aacactagta 240  
taattatcag tgctgcacag gttgcattct ccattcctgc tccactcctt gaccgcccag 300  
caaagcaatg gaccaaaca ttgcctccag agcttagagc ttcatctatg aaaccagagc 360  
attcatcaaa atgctttaac agatcactgt 390

<210> 4321

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F6

<400> 4321

cccacgagta ttttttcttg tctttttttt ttgagtatcg aacagcagaa taatcagttg 60  
gaaatacaga cagttgactt tcaccgctcc ctcaatattg tcctaataat attaaccaac 120  
agcctaagaa atacagtaca aaagagtcac gcctatcata catcgaatgt tctcaatata 180  
gacgaagctg ctggccagcc tacaacaatt tcagagttta acgtgactac tgggaagggc 240  
aaaatcatct gcgcgatgaa acccagctgc gcccaccagc actggctgta gtcttcgggg 300  
gaggaaacat gcttatgtcg gttggggcag cgggttggtc ttcaaccaca aggaccgcc 360  
tagcatggct ctacatgaa cagccatgta tgaagcattc aacttgtcaa catca 415

<210> 4322

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-F8

<400> 4322

ccccacgagt attttttttt gtcttttttt tttttttggt gttcatatct tttcgtaatt 60

gacatacaca accattatat tggtgaaaaa tacatgcagc tcctgtcctc aagactcggg 120  
cagaggcgca gagcacatcc ttctaattgg gtatacatat gctttccctg tctatcgtgg 180  
ccatggactt tgcaatacca tagataccat acgaaaacac gaaacgggag aagcaaggaa 240  
acgttacaaa tcgtacatgt ggatacaaca ctaaaacaag cgttccacac agctagcacg 300  
gcactgatca ctgtacctga tcccgtggag tgaagcgggtg aacgggtccga cccacaggac 360  
aactgaactg aactgaactg cacaggcggc ggcggcaaga cagaggaact ggtgaa 416

<210> 4323  
<211> 377  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-G1

<400> 4323

atccatttga cggtctttaa tacatctcaa aacacaccag attcgaaata tccagctgaa 60  
tgacaaaaat gcagggagag aatgagaaga gtacaggcgt tcataaaaag gaatgagcga 120  
ctcagctcat acaaattgtca atgcaacgtc aagcacattt agcagggtcac tgtaccactt 180  
caaggtcctt gaagtactca tgctcaagtg cttgcctcgc tgtgattctt ttgcctggct 240  
cgtatcgaag catttttagag agaagggtcca acccagcagg gtcaagattt gggactactg 300  
ttgccaggtc ctgagcttgc cacctgggga aagctgtctt gaagtcaggc aaacaactga 360  
ctccctggcc aactctg 377

<210> 4324  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-G10

<400> 4324

ttgtgtatgg gctgccctcg agtatttatt tttgtctttt ttttgcttca ctgaccaaga 60  
aacactttta ggtttcagaa gcaacattgt cttgtctcac gaaacaatac aatacttgaa 120  
tcaaacacct acttcttaaa ttatttacat gccaaaggctc agaatgctta tcactttgga 180  
acacataaaa cgaacgactc tctcaccgtt cgttcgttca ttcattcatt cattcattca 240

ttcacaggcc agcttggtgt cgaagctcgt cagacatatg gcgaaggcct ggaaggccga 300  
cagcgggtac cggtagtcca tggatgaacat gtccctcccg accttgccga actgcaggat 360  
caccgggtca tggtagcagc acgacgacgg cggcggcggc ggcggggggc cggaggcctg 420  
cggctg 426

<210> 4325  
<211> 357  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-G11  
<400> 4325

aaaaaagtaa acatcttttag gcataatgca aaatcctgac agcgaccaca aaaactgaga 60  
caatgtttca ccatagtacg aggcaacaac acatccgttc tgaaacacat gtcctttaac 120  
aatctaaagc acagtagaca gataaacaac gacaataact ctaggtggcc ttgtcagcct 180  
tggaggctgt ggcagcagct tgaccctga gccttcagct cctcctagcg gcaatgagac 240  
caaccttccg gccaggggga gcgtctcggc ggacagtaca ggcgtcaccg atgtgttggc 300  
ggttacctcc tccgtgggga tgctccacag ggttcatggc cacaccacgc accttgg 357

<210> 4326  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-055-Q1-E1-G2  
<400> 4326

gctcgagtat ttttttttgt tcttgtcttt ttgccaaca caatttagaa gttggataga 60  
aattagtacg cagacagcaa tcagcaggta tggaacatgt ttcacatgat gtttagattt 120  
gcaggatatc ctcttatttg gcggttcacg gttcaccgcc gagttgattt ccgatatcgc 180  
ccttagctca ccggacactc agttgttgca agtggcaact acgaaggagg agcagcagag 240  
gcagatgcct cagccggagc cgcctcgtca tccttgtgct tcaccatgcc cgagtcgacc 300  
agaatcggga cttccgccgc gagccacggc gcgaggccga ggcacagcgc gtgcgccagg 360  
ccgaacctcg ggcagttctt ggcccacagc ggcttgaag 399

<210> 4327  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-055-Q1-E1-G3  
  
 <400> 4327

gagtatttta atttgtcttg ttcaatccat ttgacgttct ttaatacatc tcaaaacaca 60  
 ccagattcga aatatccagc tgaatgacaa aaatgcaggg agagaatgag aagagtacag 120  
 gcgttcataa aaaggaatga gcgactcagc tcatacaaat gtcaatgcaa cgtcaagcac 180  
 atttagcagg tcaactgtacc acttcaaggt ccttgaagta ctcattgtca agtgcttgcc 240  
 tcgctgtgat tcttttgctt ggctcgtatc gaagcatttt agagagaagg tccaaccag 300  
 cagggtcaag atttgggact actggttgcca ggtcctgagc ttgccacctg gggaaagctg 360  
 tcttgaagtc aggcaaacaa ctgactcctg gccaac 396

<210> 4328  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-055-Q1-E1-G6  
  
 <400> 4328

gcctacagag aaggtttcac ctgtgcctag gtgatttgct tcctatgaac caatattaat 60  
 cagacatgtc acgagcatgc agcttcaact gcaaggcttt ttgtgacccc tgtacatgga 120  
 ttccaaaat aattcgacga cactggcacg ctgcagctgc tcaactccgat gcaagcctcc 180  
 tgaacaattg agagagcctg agtgctgctg cattcgccat ggctgtagct tccacatgtg 240  
 ccactcggtg tcccaaagct tgcaaacttg acgctgctga tgacctggcc ttcttttggg 300  
 cattccaggc gaagtgcagg tccatatctc tgcacgggct gttgagaact ccaactatca 360  
 atttgggctg gatgtgcctc tgatacttgt gcgc 394

<210> 4329  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB103-055-Q1-E1-G7

<400> 4329

ccccacgagt attttttttt gtcttttttt ttttttattt tttttttttt tagattggat 60  
gtatacgtac atttacatcg caaaaaaaaa gtatgtacaa tttcgaggga cgtggcaaaa 120  
ttcatcaatc actcggccaa aaattggttt gtgcaaacat ctctgatgat ggatactagt 180  
ctgaaagaat ctgttctaac tcaggatccc cggccaatac atcgtcaacc atttcagcgt 240  
caacaacctc tttgtcagca gggacatctt cgtcatcatc aggttcgccc gcctcttcat 300  
ccgtatgatt gggaacagct ggctcgccaa tgcctttgcc ttggtcagca acactattca 360  
atacttgatc atcttgagat ttggctctgg ctactgcttt gccatcagtc ctttcacaaa 420  
tgc 423

<210> 4330

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-G8

<400> 4330

gcctacagag aaggtttcac cttgtcctag gtgatttgct tcctatgaac caatattaat 60  
cagacatgtc acgagcatgc agcttcaact gcaaggcttt ttgtgacccc tgtacatgga 120  
tttccaaaat aattcgacga cactggcacg ctgcagctgc tcaactccgat gcaagcctcc 180  
tgaacaattg agagagcctg agtgctgctg cattcgccat ggctgtagct tccacatgtg 240  
ccactcggtg tcccaaagct tgcaaacttg acgctgctga tgacctggcc ttcttttggg 300  
cattccaggc gaagtgcagg tccatatctc tgcacgggct gttgagaact ccaactatca 360  
atttgggctg gatgtgcctc tgatacttgt gcgcacaaaa ttcttggtcg gcctcatcac 420  
aaaggatatc ttgcttg 437

<210> 4331

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-G9

<400> 4331

ccctcgagta tttatTTTTg ttttttaaag tgaaagacca atgcagtcac caatattcaa 60  
gtaaaagaag gcgctctagt ctgagagaga catattaaag taaaataaca ggtactctag 120  
tctgagagag taagacaggc aggcaggcca taacaaagat tctcagcttc ttcaatagaa 180  
gaaacctaga accttgcttc ctacgctctt cggcggggcc tctcgtggg ccatgatgcc 240  
tgccgaagtt gtgaggacga tgtatccgaa ctgcctggac gggagcagcc ttgcagtcca 300  
tccctcaatg tctttcacgc cgatatcaaa gcgagggctg atgacgccgc acttggttcag 360  
cctcccgttg agttcgacca cgatcttgcc cgatcggtagg tcatcaa 407

<210> 4332

<211> 244

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-H1

<400> 4332

tgccaggaaa ttggatttgt gaaaacgtct cagatgctgg atcatattca gaaggactct 60  
gttctaaatc cggatccccg gccactacat catcaaccat ttcagcatca acaacctctt 120  
tgtcatcagg gacatcttct tcatcaacag gttagccgc ctcttcatcc atatgattgg 180  
aaacagctgg ctgcgcaatg cttttgcctt ggtcaccaac actattcaat acttgatgat 240  
cttg 244

<210> 4333

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-H10

<400> 4333

aattggatat ccataatact attatagctt agcttggtca tagagactgg aggagcatga 60  
cggctgatca cacgcgatca actatcccaa gtttttacag gcacagaact accaccgaca 120  
ctcatgctgg agtaccgac gaatctagag ctactgacaa tattacgatt ggatcaaaat 180  
ccatgaaaga ggggaatcta taggcggaat tgaggggggg atctcgccag cgacaaggca 240

ggcagactac ttcttggcct tcctggccac gcccttcttg gccggggcgg cagcagcagc 300  
 agccttcttc ggggttgcca cttcttagg agccgccgt gcctttccct tcttggcagg 360  
 agcagccgcc ttcttgggtg gcctggccgg ggaa 394

<210> 4334  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-H5  
 <400> 4334

tttgtcttgt cttttcaatg cacaaatagt aacatatgag agggtaatag tttattacat 60  
 caagacgtcc gagacatcca cataatcatc tacgatatat caacatgcat aaacgaatcg 120  
 tagctaaact aagccttcac atgcagccca ctggggggtt accgctaata cacacctaca 180  
 actcatcgta ctcatggaac ccatgaaaat catccaacag gacatcatca tctcctgac 240  
 agtaattgca ttatggagac cacgtggatg tgccaccgca aggttacgtt tttggctcgt 300  
 tgtcatggca tggaaatggc actgatgctc gcgtgacgat gc 342

<210> 4335  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-055-Q1-E1-H7  
 <400> 4335

ccccacgagt attttttttt gtctttttta attaaccgtt gtaatagctg aaattattaa 60  
 tgtagataga cattatgcca gcaaaagcac tgatctaatt caccggcagc tggccagccg 120  
 taaagaatta ggagataagt tactccacac agtctgggtc agaagatcgc cgccaggcat 180  
 aacatcttct catgcctacc atctacatac tccagaaaat ccaatctact ggagattact 240  
 atttacagct ttgtgagcga tttagacatt cctctagtga aacgcaagga atgcaactga 300  
 tggaaagctg acaccagaaa tcaaagaact ctcatgtgag ttagaaaggc cgcgcacaa 360  
 tccagaaaga ggagctgtgg cccactgact ctttgcaa at cgagg 405

<210> 4336  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-H8

<400> 4336

caccagctag aaaatgtgtt caaataggag tggcagaaaa ataacacggt ttaccagatt 60  
 atactgtcac aaactgttac cgaacactta aaacaaagac tagatgttcc ccaaaactga 120  
 tgacaaagca cagctcctca gtacttgata ggggcaagaa tctccaactg agaccccaac 180  
 ttctcctcgg ctgccttctc ggccttgaca cgcagcttgg ccaattgctt ctctcctctg 240  
 taggcaacct tggccttctc ctctcctctc tctcaagtt ccctgatggg gtcattgtag 300  
 ttccaccga cctccttaga gagctcgccg aggaggcagt acttgtgtcc aggctgtagc 360  
 ctcagaacct 370

<210> 4337  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-055-Q1-E1-H9

<400> 4337

gttctgtctt ttttttttct ttttcttttg caatgcaaat aatatcagta atgaatatac 60  
 gacaacaatg tatctgtttc cgcagacccc tccagcgaaa atcgaccacac tgatatctgc 120  
 aaaatcccag ttccagcttt ccctcgtaca atatgtgaaa aagaaaacaa aggtaaaagt 180  
 gggcaagcca aaaacaacca cacccaagca gcccactgt atagaaaaag gactattacc 240  
 aaactggtta tcggccctga caaaaagtgt caggtgatat caaccaggac cagccctcgc 300  
 acatcaagac cgcctaagc cactcccaca tgtcttgctt gcttggggct atagaattta 360  
 ctggagcgca cacgtaaaaa acagctgatg gaccacaact gaactccaag ca 412

<210> 4338  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-056-Q1-E1-A2

<400> 4338

cgggtccacgg gtagcttata tatgaatatt atttgaagct tctctgaatt cttttatgca 60  
taatttggtta tctttgtaat tctcttcgaa ctatcgattt gatttggcta actagattgg 120  
tttttcttga aatggagaag tgcttagctt tggattcaat cttgcggtgt cctttcccag 180  
tgatagtang ggcagcaagg cacatattgt attgtcgcca tcgaggataa aaagatgggg 240  
tttacatata ttgcttgagt ttattcctct acatcaagtc atcttactta atgcgttact 300  
ctgttcttga tgaacttaat actctagatg caagcaagag tcggtcgatg tgtggagtaa 360  
tagtagtaga ttcagaatcg ttttggacta ct 392

<210> 4339

<211> 376

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-A4

<400> 4339

cgggtccacg cgggggcttt acctgacgcg gtaggcggcg gggcagttcc gcctagtcgg 60  
ttcgacagtg acgcgagaag acgagggagt aggctgctgc aaacgtaggg ctgtgtgatt 120  
tgacagtggg ttactgctgg acaggtgggg cctgttatt tgacttgcca ttatcatttt 180  
aactgtggtg ctacgaccgg cgtgagtcct cggattcttg accacctcca tacaggtgcc 240  
tctcccaatg ctccaccatg tagtacaggc tggctcttgc atgagagcca acttctccac 300  
tttttccttg cctctctttc cttegcataat gcaaaaatgc catgtaaagc gcaactattgg 360  
taacactttt acttgc 376

<210> 4340

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-B1

<400> 4340

cggggacagc gaaaagtaga atgggatgga agtggagcct gcggcgttcg catctgggtg 60

aggatgaaat gaagatgcaa aggagaaggg gccgacgagg aggacgagga cgaggatgag 120  
gacgacgaag aagacgactc cgacgacgaa gaagacgagg attcggagga tgaaggggac 180  
gaggacgagg acgaagactc cgacgaggag ggctacgacg acgacgacga agacgaagac 240  
gaggactccg atgaagacca tgaccacgag gaggacgagg acgacgaaga cgacgactag 300  
gacgacgacg agtataatgg gatggaagtg gaggcctgcgg cgttcgcacg tgggtgagga 360  
ttaaataag atg 373

<210> 4341  
<211> 125  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-B11

<400> 4341

tctccctaac tcgagccctt ctccacctcc agccaccgcc gcgaccaggc atacgtgtcg 60  
gctcgtcagc atcacctcca ctatcacctt acgcttcacg taaatccatc agccaaccca 120  
cgatt 125

<210> 4342  
<211> 341  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-B2

<400> 4342

cggtgccacg ggatgtactg ataagtgatt caatacacac attaccaatc gaggaggaga 60  
acgatggctg cggcggcctc tgtgagtcac ggtcggcaac gggagtcagt tcattgtcca 120  
tgacgggtgg acttctacgc ttggcgctcg cttccgggaa gcagatccga gaccgtggaa 180  
gacgatgccg gggaagaggc tccgtgtacg acgacgacgg tggaccggct ccagtgcggc 240  
gtacgaagtc gtcgatgagg cagatgcgct gcggtggacg agtgcgccga tgtaaagggg 300  
aggagcatga aggctgcagt gccgtggaga agtccaattt g 341

<210> 4343  
<211> 336  
<212> DNA

<213>      *Triticum aestivum*  
 <223>      Clone ID: LIB103-056-Q1-E1-B4  
 <400>      4343  
 cgggtcgacg ggacctacaa aggtgggttc attgatctac aaaccctactc gattaagttt    60  
 aacaattcag atgacgagta atcgcgctcat ttgttcgagc cgtgcgacat ttccattct    120  
 tgccctcggt actcggtcag tcttgctgaa cggaagaagt gaaggcatgc ctgctttgca    180  
 gagaagaagc aaaaacattg aattgttgta tcttgccctt tttgttatgc tgcattgctct    240  
 gttaagtcac cagaattttg taatggactc ggtgagacgt acattttggc tatcccaatg    300  
 ggaaatgaaa tattactaca tagtaagtat cgtttt    336

<210>      4344  
 <211>      182  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      Clone ID: LIB103-056-Q1-E1-B5  
 <400>      4344  
 cgggtccactg ggactactaa aagtagaatg ggatggaagt ggagcctgcg gcgttcgcat    60  
 ctcgttgagg atgaaatgaa catgcaaagg ataatgtgcc gactaggacg acacgacatg    120  
 ataagactac acaagttact ctacaccaaa aacttgattc caagattaag ggacaagaca    180  
 ag    182

<210>      4345  
 <211>      374  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      Clone ID: LIB103-056-Q1-E1-B6  
 <400>      4345  
 cgacgggagg cagcgactac atcgcgctcg cgctcgtaa gatgctgctg gagaaggggt    60  
 acgccgtgaa gaccaccgtc aggaaccccg atgacgggga gaagaacgcg cctctcaaga    120  
 ccctggcggc gctggggccc ttggaggtct tccgcgcaga cctgaacgaa gagggcagct    180  
 tcgacgacgc cgctcgctggc tgcgagtacg ccttcctcgt cgccgctccg gtggccctca    240

tgccaaagat accccgagga acaagtgata catccagcga tccaaggaac cctgaacgtg 300  
atgaggtcct gcggaaggc tgtgactgtg aagcgcgtgg tcctcacatc atccacggcg 360  
gcatctcca gccg 374

<210> 4346  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-056-Q1-E1-B9  
<400> 4346

ggtagcgctg ataacaagac gccatcttct cacttcgtga tctttccgat ccttgaagta 60  
ctcggtgcg tcagcagcac tggcagcaa atccacgtag gcgttcgcag aactccatag 120  
ccggtccaga tgcgcatact tcggatcccc gaacttcgtc cgcaacaaga agggcttccc 180  
agacacgata tctgcaactt gattcagctc ctctttatc gctctaattt tggagcgggc 240  
ttacttggca gccacccggg cttctccag gtccgtcacc ttcgcccgat tttcctcttc 300  
aagaagccgt taacggtcag gagcatctt taactccacg gccatcttgg caactttttc 360  
cttgctctcg caatgtgagg cctgttcggc ccttaactct tcagccgcct gtaaaacggg 420  
cgc 423

<210> 4347  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-056-Q1-E1-C1  
<400> 4347

cgggtccacg cgcggttggg aggacagaac cgggaccaat gggccttgct cctggcccac 60  
caccattggg cccggttggg ggcttgaacc gggaccacag gctgcctttt agtcccgggt 120  
catgccacga accgggacca atgaggtgcc tatatatacc cctcgcccg cgcagagca 180  
ctccagtgt atgtttttct ctggtcggcg aggggagggc tttgtggtgc tctagctcac 240  
ctcctatgca catgaggtgt tcggtgaaat gcccagacca cactagttaa gctttctcct 300  
ctcggagctc gacctcaaag ctccatcttc ctgcagatct gtctaggttt agcggcccg 360



cacgtcgcat tcccgctcttc accgccgtcg atcgcccgcg ccgatctcgt cgccg 415

<210> 4348  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-056-Q1-E1-C11  
 <400> 4348

tcgacggggc ccctgcagtg tgcaattggc aggaatcctg ttagtttgat tttcaaacc 60  
 tttgagagcg atccgtcaga gttaaccttc tctttttaca cctgcttagt taaaaacaga 120  
 ctttcattaa tattagttgc acaaacgaga gtacatcaca eggcttaaac tcgatcatta 180  
 caaaagtacg ccatcagcaa caccctagct gcgcctacac cattacatac ttggctgcta 240  
 acctatgata caaatgtcat aatacaccct agcaccttga ttcagatttg ctatcttttc 300  
 tgcggctgct atttcttgct ccgatttagg gatctattga ggaacagtgt gcaactagga 360  
 tttgtttctt cgatttgggg atggattatt atagactgag ccgccaccaa ttgaagagtt 420  
 ataatgaaa 429

<210> 4349  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-056-Q1-E1-C3  
 <400> 4349

cgggtccagg ggcaagctca aaccaatgag gttagcaagg gcaaaccact agattgggtt 60  
 tcaggacaac cagtcacaga tgagcatgga cgccttcaga ttataaagaa tgatgacctc 120  
 gaagagctcc aagaactcgg ttctggaact tttggacctg tatatcatgg gaaatggagg 180  
 ggctctgatg ttgcaataaa aagaatcaat gacagatgtt ttgctgggaa gccatctgag 240  
 caagaaaaaa tgcggaatga cttctggaat gaagcatcta accttgctga tctgcaccac 300  
 cccaatgttg tggcctttta tggcgttggt ctagatgggc ctgggggatc cattgcaacg 360  
 gttacagaat acatgggttaa tggctcactt aggacggctt tgctgaagaa ttccaagagc 420  
 ctgga 425

<210> 4350  
 <211> 269  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-C5

<400> 4350

tgtgtgagca aggcattgtac attagtatcg atttcgcgag tgaggatcct atgatgttgg 60  
 gcacccctcac atggctggaa gacttggatg ctcttatgag acaagcatct gatttcggaa 120  
 aatttcgggc tgtctacat cacaggctga tgggcatca tattacgttt acgaggatga 180  
 agtcctactt tgatgcaggc aaccttcttc atgcctcctg taaccagaat ggcttctgca 240  
 ttaacgcagc ttaacttgct aatctacaa 269

<210> 4351  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-D11

<400> 4351

gggccacggg actcaatcaa atgaagagaa gtcatagaga agatgaaaga ctcaggtagt 60  
 ctcatcaga gtgggacctg gccagagtgt catctcatgt agtgtaatct ttagctgctg 120  
 cgcaaatcag actgggaatt caccagagg tgcggtgatt ggcgcgcgcc cctgaagaat 180  
 tttgtagcgt tcgatgctaa ttatttgaa taattggttc gggcagcctt aaccgggtaa 240  
 agttgctgtc tacaaggctg aaaagtttag aaaattgtgt caaacctcag gaacaacccc 300  
 tttgtaattg ctgaagaagt gggcagttca tctggtattg caccaaaaaa gaa 353

<210> 4352  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-D2

<400> 4352

tcttcctcat ataaaagcct acgtaccccg aaaacattca tggttccaat gaaacataat 60

ttccaccacc ggcaccttct gtatccgtga gatcccatct tcgagccttc gtcggcgctc 120  
 cgtcggaggg ggaatcgacc acggacggct tctacatcaa caccatagcc cctccgatga 180  
 gttgtgagta gtttaccaca gacctacggg tccatagtta ttagctagat ggcttcttat 240  
 ctcttttttg atctcaatac aatgttctcc cctctctta tggagatcta ttcgatgtaa 300  
 actatttttg cgggtgtgtt gtcgagatcc gatgaattgt gggtttatga ttaagcttat 360  
 ctatgaga 368

<210> 4353  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-D4

<400> 4353

cgggtccacg cggggacccc atggaaggat ggttgaacag gaccacgtgg agggctgggt 60  
 gaacaagacc ccgtggaggg ctagttgagc agtagcttaa gatttctagg atcacaacca 120  
 aatgtaaata aaaatatgat atgcatatga tgtcctatgt ataacatcca aattgaaaat 180  
 tgggatgtta caaacactca cattctgata atgaagaaga taatgatgag gttcatgaaa 240  
 atactcaaac aaatagtaat gaaccagaca atgatgttga gatagaaccg ccagttgatc 300  
 ttgataacct acaacctaaa aataaaagat atgataatag agacttcacg gctagaaaac 360  
 acgggggaaa caagcgacca gccgagaaga aaaaagcggc cgct 404

<210> 4354  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-D5

<400> 4354

attcgcccgg tccacgggtt atattaagag tgatgagatc cacattataa tccaacaact 60  
 agatacccag aacgtccata accggggaca caactaacca tgattagttt atacactctg 120  
 cagaggtttg tgcacttttc ccacaagac tctaatacat ccatgggtcaa agaaacgaga 180  
 cacagtgttt ctgagacaat aactctttac tctgggtgga cagctacacc tactttcccc 240



gcctcgctct ccccgaggag ctcgccaagc acgccgtctc cgagggcacc aaggctctca 360  
ccaagttcac ctctcctaa acaacttagg cttgatcctc gtcgcctcat gcg 413

<210> 4357  
<211> 273  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-056-Q1-E1-D9  
  
<400> 4357

cggggcagaa ccacaaggca gagaagcggg cgccggcgac caaggaggcc ggcggcgagg 60  
ggaagacgag gggcaggaag aagggcagca aggccaaaga gggcgtggag acgtacaaga 120  
tctacatctt caaggtgctc aagcaggtgc acccgacat cggcatctcc tccaaggcca 180  
tgtccatcat gaactccttc atcaacgaca tcttcgagaa gctcgccggg gagtccgcca 240  
agctcgcccg ctacatcagg aatcccacca tca 273

<210> 4358  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-056-Q1-E1-E2  
  
<400> 4358

cgggtcacgg gaatggttgc aatacaccac cacatggggc aacgttcaac acgtataacg 60  
caaaaagtcg ggactccgaa ttacgaattc tgggagcatc ctagataatt atgtcatcaa 120  
aatggcgtaa caaaaggact gtcttggacg cacagactag atactcagta agctcctata 180  
tgcaatccat tcccatcatg agataaatgc tccaggactt cactacgatg ggagagacac 240  
ggaaatcaag tccccagat tctacagata cgtcgtgtca actcaggagg gtctcgacatt 300  
ggccacacg ggtgtgcact aatatataag cgtacatgtc atcactttta atgccatgca 360  
ttattgcaaa atcttctgac atgaatgaat gcgatgcgcc tgtctcaaag a 411

<210> 4359  
<211> 379  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-056-Q1-E1-E3

<400> 4359

gggtccagcg cggtgttgcc atgaacagaa taggaaaatg aatattttcg aattattttg 60  
aactaggcaa ggaatgtttt tgacacatth gatgaagata tgatccanaa catttatgag 120  
aattttttgg gaatttttgg aaaaacagaa atataggttg cctcaaaacc tagggcaaaa 180  
actgccacat ggacatgaca cataggcana actgatgaga tggcgcctag tcatcacaac 240  
ccaccacaat cctacaagct atgaccatct atattgggtca ttaacaacta gaaataaggc 300  
agcggactaa gactgtttgc tttgtgacca tttcgtgtaa ggaaattacg gcctttctga 360  
ccaaaatggt cccaatggt 379

<210> 4360  
<211> 339  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-E4

<400> 4360

cggtccacg cggtcgccg aagcaacaac tgcagtagtg gggcgccta ccccgcgcg 60  
actcctctc gtctccgcc gccgcgtgc tccgcgattc gctaggtcat tgtagagcat 120  
ctccgttcg aaggtcacct aggagcgct gctacgcttc caccaccatg ggagacgaga 180  
cctccacttc tgctcagge tcggcccagg aacctgcage accggccctg cagggagctg 240  
ggagtgtcaa gcagcagatc tccaacttgg tggctctgtc actccgtgcg acagtgcctg 300  
aagtggatgt agaaccgata gttgaagttt gcacgggaa 339

<210> 4361  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-E5

<400> 4361

gtccacgggg acacgaaga accctagcag atcgctcgag ccctccgcc cgcgcgcgc 60  
ttcagctctc tccttccttc accgattcaa gatgaagttc atcgctgcct atctgcttgc 120

ttacctctct ggcaacgcca gcccctctgc agaggacctg acatccattc ttgagtcagt 180  
 tggttgtgaa atcgacaatg agaagatgga actcatgctg tcccaagtga agggcaagga 240  
 catcactgag ctcttggtg ctggtaggga gaagtttgct gcggtaccat ctggtggtgg 300  
 tgggtgtggct gtttcagccg ctgctcctgc tgctggtggt gctgctgccc ctgcagctga 360  
 gtcaaagaaa gaagagaagg tcgtggagaa ggaagacagt gatgatga 408

<210> 4362

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-E7 .

<400> 4362

ttcgtcggtc gacgggcggt attgacaccg acactcatcg ttatctttgc aagctaatat 60  
 agccgtaaaa gcttctttat caataatata accttcagga atatcaggca tgttttcatc 120  
 atcaatttca tcaacatgat gagtttcaat aatttctttc tctctagccc tagcaatttg 180  
 ttcatacaaaa aattcactaa tgggcacagt agtatcaagc atagaagtag tttcatcata 240  
 agtatcatgc atagcagaag tggcatcatc aataacatgc gacatatcag aacgaatagc 300  
 tgaagcaggt ttaggtgtcg caagcttact cataacagga gtgaatcaag tgcagagcta 360  
 gatggcagtt ccttacctcc cctcgtagtt gagggaaaaa tttttt 406

<210> 4363

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-E9

<400> 4363

cgggcatgct caagatcaaa agaggatagg gcggcaacta tcctcaccga aggaaccac 60  
 aagacccccg gcaggatcct tgccggggaa gccgcacac cgtggaaaga cccttgccgg 120  
 gccacccggc aagaccctcg ccaagcgcac cggcagggcc actgccaggc ccgagccaac 180  
 caagtctttg ctgccgttcg catgcagctg ccacccaga cagctgggca ggcacctgcg 240  
 tggcaacatg caaccttcat ggaggctcca ccaactgcgc acctcagctg cctgcctgcc 300

aacagggcac cgcatgcagc gctggccagg gcgtgtgtcg aaacgagaac gggcggagac 360  
ggacgggaca gggctcgac acgtcccca ggccgcgaga 400

<210> 4364  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB103-056-Q1-E1-F1  
  
<400> 4364

ccgggtccac gggtgacgtc aacaaacgcc ggccagcctc ggcacagctg cgggtgggta 60  
tatgggtggc ggagtacacg agtgggttcc gatgtcagga taaccaccgt ccatagctct 120  
catgtgaatg tggcaaggcc acaaaacaag ttttccatcg ccagatatcc aacagatcaa 180  
ctgggtgttat ggatgcttct taaagatatt tttttgtcat ttcanacatc aaacaccaac 240  
tattcacaat ggagacagga aacgtgtagc ttctcatgtc aactaagtga gcctgccaat 300  
tgtggcaatg gaaggagggtg gcattgtcgc tcattcatga ggctgttagt ttcataacag 360  
acattttcca gttgcatatc ttttgtaaag tgttcagact ggtttttt 408

<210> 4365  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-056-Q1-E1-F12  
  
<400> 4365

gtccacgggc atagaaaata ttgttctctc atgcttcact tatatcattt tgagagtcct 60  
acaaaacagc atggtaattt tcttaaattg tgaaattagt cctaaatatg ataggcatcc 120  
aagatttgta aaaactttct tataagtgcg ttgaatacta agaaaagttt gatgcttgat 180  
gattgttttg agatatggag gtagtaaatt aaagttgtgc tagttgagta attgtgaatt 240  
cgagaaatac ttgtgttgaa gtttgcaagt cccgtagcat gcacgtatgg taaacgttgt 300  
gtaacaaatt tgaaacatga ggtgttcttt gattgtcctc cttatgagtg gcggtcgggg 360  
acgagcgatg gtcttttctt accaatctat ccccttagga gcattgcgct agtgcttagt 420



ttttgacgac

430

<210> 4366  
<211> 186  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-056-Q1-E1-F2  
  
<400> 4366

gggtccacgc ggatgaatga atccattgtg agaagagccc ttgtgatcat gcaccatagg 60  
gacgaagtgg agtacaagag ggagcgccat gtgattgtcc gcaaggcttg agctgacctg 120  
aaccgatgga gctaccatgg aaacctctgg ccaactgatg tgtgtgtaaa agtattgctg 180  
acactg 186

<210> 4367  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB103-056-Q1-E1-F3  
  
<400> 4367

cggtcgacca tccgggtcga ctcttaggcg atactcagcc agtcccctgg gaacacctgg 60  
catgtcagcg ggcttccatg caaaaatgtc ncagttctca cggaggaact ggatgagcgc 120  
ttcttcttat tttaggtcga gtgttgtgga gatgcggggtc ggagctgcat cggggtcggt 180  
cgggtgaatg tgaacaggtt tcgtctcgcc ggacgactgg aatgcagact ctgtggcggg 240  
tttcttcgat cgcagcaagt cactcggatc tgcgttttgc ttgtattctt cgaactcgac 300  
cgctgtcacc tgggaatcgg caatcttggg gcccttctga tagcactctt ctgccttttt 360  
ccgatcaccg gggacagtga ttactccttt ggggccgg 398

<210> 4368  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB103-056-Q1-E1-F4

<400> 4368

cggggtccagg cggtgccaa aaagcggagg cggggcgagc tagaaccgca agtgactcca 60  
gcaggcctag acttaatcag cagcctcccc gatgatatgt tgagagtcac catctccctc 120  
ctcccagtca aatatggggc gcgaaccgtc ctttcccggc ggtggtgccc cctatggaac 180  
tccagccctc tcgacctcat cgacaccac gagctctgcc atggctatcg caaaatcttg 240  
gatgcgttct ccaagatcct cgacagtcac cttggtgata acccacaagt ataggggatc 300  
gcaaccgttt tcgagggtag agtattcaac ccanatttat tgattcgaca caaggggaga 360  
caaagaatat tctcaagtat tagcagttga g 391

<210> 4369

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-F6

<400> 4369

gtcgacgggg aacaaacatg gtctctgttt gctttgagaa ctgtaagcgt gtttaacctg 60  
acagcgcttg taattgtagg ccctttccgc atacttcaca gcttggtgtc ttatgagggtg 120  
ctgcagggca gcaggctggc ttgtgccgcc tcggtcatta ttatcatttg taacttggtta 180  
gagtgcacat taatctcagg aggacataga cataatactt atgctgctgt tgttgtaacc 240  
tgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa tttataaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa 360  
aaaaaaaaaa agggggcccc ccaaagg 387

<210> 4370

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-F8

<400> 4370

gtcgacggga aatcttcaaa aaagaaggac ttcaagttct agacggcgcc gttttgttac 60  
tgttgctctt ccgcttccca ggaggaggat gtttccattt cttcctgtag cctgtactat 120

actctaaatc aagctgtgta tgtatactta gcctctggca aatgttgaag tgctggatga 180  
 aaaaagaaat gaagctctgt agtccatgca tgagaacaag ttatgatatt aaatgtaact 240  
 gctagcatta ttttattgct gttatgaaga gtgatgctaa gtttgctaaa aaaaaaataa 300  
 aaaaaaatgg aaagcaaaaa tagaaaagga gataaaaaag gcatggaaaa tttatttcca 360  
 attagaaaga tgtattagga aaaggggt 388

<210> 4371

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-F9

<400> 4371

cggtgcttgag atagacccaa gaagccgtac ttatcattcg tgatgcatag ggttctcctg 60  
 tccagactgc cgctgctcag catgaggaga acgctaattgt gcaggacctt gtcctcctgg 120  
 atgtcatccc aatgtctctt ggtcttaaaa ctgctggagg agtcatgact gtgctcatca 180  
 tcaggaacac caccatcccc actacgaagg agcaggtctt ctcaacctac tccgacaacc 240  
 agcctgggtgt gctcagccag gtgtttgagg gtgagaggac tacgaccagg gatatcagcc 300  
 tgctcggcaa gttatacctc ttctggcatc gcgcctgcac ccaaggggtt tcccca 356

<210> 4372

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-G1

<400> 4372

cggttccacg gggggacgga aatTTTTTct cccaaccag caaggaagag gaagaggaag 60  
 cggtatcgagt cggtcgagagc gagggcgagg acgatggcgg cgctccggct agcgttgagg 120  
 aggttttgcg accgtgcgct cgggagatca gcgggcattt acgagctcaa ggctgccaag 180  
 gaattccccg acattgatcc tgagcatctc aaggctgcca ggaaattctc caaacttcgt 240  
 gtcaaggatg ccgatgctac ggctctgaat gtctccaaga ttctccgggg cagtccagtc 300  
 gatggtcata aagatgtaac ccttcgtgaa gaatgtctac ggctctgaat gctacggctc 360

tgaatgtcca cggtcttgaa tgcctcatg a

391

<210> 4373

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-G10

<400> 4373

ggtcacaggg ctggaggaag ggttttcccc ttcttgacc ctcggcctc cccagttggg 60

gcggccttcc ttttcttccc tcccccgct agagggggag ggtctattc ttcctctcc 120

tcatcttcat gggaggagtg cgtcttgag tcgtcggatg agggatctga cacctccagg 180

tggcaggcac tcttccgagt ccccgaggcc atcttcttga ccttcttctc cggcaccaca 240

tggggtgccg aaaccagcag ctcgccaaa cgagcgtccg ctgggccttc gggcaaagga 300

gccggatagt tgatctgttc ggacgtctcc tgccaatcct gtcaaaggta agggagctta 360

gatcccgcat ggagtcaaac tatgaaaaac tgataccctg aaaaaaaaaa gagaaggac 419

<210> 4374

<211> 449

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-056-Q1-E1-G11

<400> 4374

ttcaagggtc cacgggcaag aaggagaaaa ccatactacc aggacttgaa caagttgatg 60

ttggaaaaca gatctcctcg caagtttcca cgaagggtgt tccaggcgat tcatgtaatg 120

gcagaatgac taaaaggggtg gactcgaagt caaagaaact tgtgagatat ccagtaatga 180

agttgtggct tcggccaaga caattatcac taaagcaaca aaagaagaag cataagaaaa 240

ccaaaaagcg tgtaaggac acggccagtg ttgattgttc tggtgacaac agcagtgagc 300

agcaaacatc aacatcagca actgtgccgc caaaaactgc agaacttaca tctcgtaaac 360

ggaaatattc ccatgccagt gtaagttctg aaaacaacac ccaagcgctc aaagacaggc 420

agcaagctgt tggagcaagt antgctggt 449

<210> 4375  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-G12

<400> 4375

cggggagcat gcacgtagtg ctttattttt gatgacttat aaatttttgc aataagtata 60  
 tgagttcttt ttactaatgt tgagtccatg gattatacgc acttttacct tcccatcatt 120  
 gctagcctct tcggaaccgt gcattgccct ttctcacctt gagagttggg gcaaacttcg 180  
 ccggtgcatc caaaccctgt gatacaatac gctctatcac acataaacct ctttatatct 240  
 tcctcaaaac agccaccata cctacctatt atggcatttc catagccatt ccgagatata 300  
 tttccatgca actttccacc attccattca tcatcatcat gacatacttt acttttgtca 360  
 tattgccact gcatgatcat gtagttgaca tcgtatttgg ggcaaagcca ccatgcataa 420  
 attttcatac aagt 434

<210> 4376  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-056-Q1-E1-G2

<400> 4376

gggtccagac agaacaacaa gagggttggtg tgaatttttg tgatttttcg gggttcgttt 60  
 cgacattttt atgcattaac tgagttttca atgcatttat gtgcataatt caaatttgaa 120  
 ctactgcaca tgctccagtg catataaatt ggttgaaaaa tcaaattctt gtccttgggt 180  
 gcatgcttag gtcccatgca agaaatggga atgaatttca aacaccaggg caccattgat 240  
 tgctagtaaa acattgagat gcctggtttt taaattctag taaattcaaa actcgtctga 300  
 aattcatgaa acttggcatg ctatcatgga gcgggatcaa catgccgtgg taattttttt 360  
 cccatttgga gcaagtttgg gtanatgctt ctcacaaacc agagcttctc aaaacaagca 420  
 tgatg 425

<210> 4377

<211> 362  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-056-Q1-E1-G4  
  
 <400> 4377

```

cgaggtgttc caggtcgtct tccgtcggat cgtggggctg atattcatat cattgatcac   60
gatcatgaga ttcttatcag cagtcgcgga catgacagtc cgtgacatct tcgtctgcag  120
cctcgccttc atgatgtgtg gatggggcct gcttcagagt gtcacgcta tccatcttgt  180
cgtcgagatg gtcgggctgt gggggctctg gaacgctctc gcccggggct atcagatcct  240
gatggggctc ctgctgttct agcacatcgc gttccttgcg tggttccccct ttgtgtccga  300
gttcagagc tggatgcttt tctaccagtc gttcagcagt cgcctgcaga tctcccgtat  360
cc                                                                    362
  
```

<210> 4378  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-056-Q1-E1-G5  
  
 <400> 4378

```

ttcgccggtc gacgggttgc atgaatagga tctaattaaa ttgtgggatg ggaagtagtt   60
gaggtagtag ctattacctg ttttattatc aaacctttgg gagttacttc tacgtttgcc  120
attatgctat gctatgctag tagacgtgga ttgggtgagt gatattcatg acagatgtga  180
gtttttttta ttaatggttt atctaagatg gcaacttaaa cacagatctg ggtggattga  240
ggtagcctggg tattccaggg ttgcctgttt cttttggacc gccacccagg ctcaaaggga  300
tcatgagatt attcatacta gaaactttcc tgtgcagcca caagccatta tgggctctgg  360
catagttgaa taagtcgtgc gaac                                                                    384
  
```

<210> 4379  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-056-Q1-E1-H1

<400> 4379

gggtccagac ggccaccata gttcaaaggg tgggtgctct tggcatggtg atgcagctgc 60  
cgggggaaga tgccgagttt gaactctcga ggaagcagat gctggcgact ctggatgtca 120  
tgatgggagg gctgggtggc gaggagctta tagccggaga aggcggggtc accactggtc 180  
cctcaactga tctaagcgag gcgactcagc tggcgaccga catggtcacc aagtatggca 240  
tgggcaagcg ggtgggcttt gttacctata gcaatggcgg tgatgctagc agtggcaagg 300  
cgaccaacat gagcgagcgg atgtcagaac tggttgacga ngagggtgaaa gatttactgg 360  
acaacgctta cangaacgcc aaa 383

<210> 4380

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-H10

<400> 4380

ggtctacaga taactacaga ctgttctgtt tttgacagat tctgttttgc gtgtgttgtt 60  
tgcttatttt gatgaatcta tggctagtaa aatagtttat aaaccataga gaagttggag 120  
tacagtaggt ttaacaccaa taaaaataaa gaatgagttc attgcggtac cttaaagtag 180  
tattttgttt tctttctcta acggagctca cgagatttct attgagtttt gtgttgtgaa 240  
gttttcaagt tttgggtgaa ttcttttgat ggattatgaa acaaggagtg gcaagagcct 300  
aagcttgggg atgcccattg ccccccaag ataatccaag gacatcaaaa agtcaaagct 360  
tggg 364

<210> 4381

<211> 304

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-H2

<400> 4381

attccgagtc gacgggatat ttagagtccg tatgtgtggg gaaacaagag atagggttga 60  
tttcagacct ctccaccaag ggccacgaaa ttccccctct cttcctccat atatacatcc 120

cttaaggcaa cgttttagact ttgggttttg tttagattaa aagttcgcca tagctgcaac 180  
 ttgcgcgtact tcgtttgtgt tcaacgacca gacaaaggcg tcacagaacc ccaccttgat 240  
 caataaagct ttcattcttat attcgcaata tccagattgc aatcttaggt tcttgcatgt 300  
 tctt 304

<210> 4382  
 <211> 279  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-056-Q1-E1-H3  
 <400> 4382

attggatgat ataatcaatt tgatgcttga taattgtttt gagatatgga ggtagtgata 60  
 taaagtcatg gcaattgggt gaatatgaaa ttaaagaaag cttgtggtga agtttgtgga 120  
 tcccgttaca tgaacttagg ggaaccgctt tgtgaagaat ttggagcaaa attttattta 180  
 ttgagtgtcc tccttaagag tggcggtcgg ggacgagcga tgggtattttc ctacaaatct 240  
 atccccctaa ggaacatgcg cgtagtgctt tggtttttg 279

<210> 4383  
 <211> 242  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-056-Q1-E1-H4  
 <400> 4383

cgcattgtgc ttcaagcgtt ttacgatacg ctttgcctca tggcgcggtt gcaatccatg 60  
 gatacaaaat tagtatactg tataactatctt gaaagtcgaa ggcggggctt ttctgctgca 120  
 gtaggtggca gggcagttcc acctagtcgg ttctacatag atacgagaag accagtgagt 180  
 acgttgcttc aaacgcacgg ctgtgtgatt tgacaacgag ttactgctgg acaggtgggg 240  
 tc 242

<210> 4384  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB103-056-Q1-E1-H5

<400> 4384

attcgccggt cgacgggagt aggaggatgg actgctttcc cgcccttcag atgcacaggg 60  
actgggtgag ggacgtcgcg tggggcgcaa acctagggct accaaagtcc acgatcgcca 120  
gcgctttctca ggatggaacc gtcgttatct ggaccgcgcc gaaagaaggc gagcagtggg 180  
aaggcagggt cctgaatgat ttcagaacct ctgtttggag gctgtcgtgg tcgctgacgg 240  
gcaacatctt ggcggtctct gatggcaaca acaatgtgac cctctggaaa gaagctgttg 300  
acggcgaaatg gcagcaagtg actaccgttg agccatagat gttctgcgtt ctgcctctag 360  
gttcttttagt aattactata tcataaccaa tgtaattttg cc 402

<210> 4385

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-H7

<400> 4385

attcgccggt cgacgggatt cacggaaacc ccacaacaac atcttgtttt cgtgctcgct 60  
gttcgcgctt gaaaatggat gtagcaaaaa cttcgccgat attagcaaaa tccaactatg 120  
gttgacagca agatcatcat cgccgcccgc gcgaggatcat agctctgcct tgatggagggt 180  
agcacaatat ttcgctggta gtaccacaac acatctacgg ttacagcaaa acttggtatc 240  
gccggtgccc cacgtccatc ctctttgtat aaaaaatgaa gccggttgta gcaaacaacg 300  
gagttgggtg cagcttttcg gcgtcgtcca tggcttctgt agtctatggg tgaagctttt 360  
tttgccgcgc gttgaatctt tt 382

<210> 4386

<211> 328

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-056-Q1-E1-H8

<400> 4386

gcattggctt caaggtagca ggctgcgttc ttctttcaat gcaggagatg cgaccgttga 60  
agaccttggc ttgctcctcg actgggagtc acagtacctt ggggcactct gcctcnctcn 120  
cagcagccgt cncagcccc gtctttctac tggcctcagc atcaggccta cagcaatttg 180  
ccccacagt cttgaagata tgtatgcttc agagatggca atgtcaccga ggttcaccan 240  
tgatcaaggt cactcagcct actcancaag ccacanatca gccatcctta acaggcttca 300  
tcagcagaag ggtctcctct cacctgtc 328

<210> 4387  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-056-Q1-E1-H9

<400> 4387

tccacgggct ctatccacct aggagcatgc gcgtagtact ttctttcgat aactaataga 60  
tttttgcaat aagtatgtga gttctttatg actaatgttt agtccatgga ttatacgcac 120  
catcaccctt ccaccattgc tagcctctct agtactgccc aactttcacc ggtaccataa 180  
accaccata taccttcctc aaaacagcca ccatacctac ctattacggc atttccatat 240  
ccattccgag atatattgcc atgcaaattt ccaccgttcc gtttggtatg acatgcttca 300  
tcattgtcat attgccatgg atgatcatgt agttgacatc atatttgtgg caaagccacc 360  
gttcataatt tttcataca tgtcactctt gattcattgc atatcccggt acaccgccgg 420  
aggcattcac at 432

<210> 4388  
<211> 351  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-A11

<400> 4388

cgacaggcaa cttccttaca gagggtcctt cattaagggt tcacgttgat ccaggggtgc 60  
aggctcctcc ctgggcgagg tgcttggtg agcttgatgt ttgtgatgct gtgtagtgaa 120  
tgatgcagca tatggactgt atcatctgtt tgccatgtag cgctgtaagc catgtgtttg 180

gtttcagcaa ttgttttagct gcatcaatth acaccgtgcg tcaagttcat cgggtgtcgaa 240  
gctgacatcg tgtctagaat gcaccttgcc ttggaactga cgttttcaa ctaatcttgt 300  
ttacctcata atctgggtgta gctaaaaact tgggtgtgcct aaaaaaaca t 351

<210> 4389  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-057-Q1-E1-A2  
<400> 4389

gggtccacgg cggaggagga aggaaggaga tggacttctt tgtgacgtgt ttaaaactat 60  
gtggtttttt tgcaaaaaaa caaatacaact gccccatgga caacttttcc cggacggagg 120  
gagtactagt taaatctgag ctatgggtgt gaagcactga tatgccagta catttgattg 180  
tgacctattc taattttgta cctgaacttt ttttagaaag ggttgtacgt aaacttaatg 240  
tgctagcaga acttattgtg ttgtctatct gttttctttg cacaacattc aagatatttc 300  
cccatcattg ataaagacga tgaaccgtta tgtacgaact cgttggtttc aacatagccc 360  
ttencgtagt gatccgctgc ttccatcctg 390

<210> 4390  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-057-Q1-E1-A4  
<400> 4390

cggctgtagt ggaggaggcg gtgccggctg gccagcaggc ggaggaggaa gcaatccttc 60  
acccttgagg attcagggtta gccagtgaca cttcagggtg gtgtgggttg acggcttcgc 120  
gccactatgg aacttgtagg gagcatcaag ggttttctca taggagaagg cgggcagcca 180  
agcaggcttg ccacccttct gacgcttggg gccgggttga ccctctggct gctgatcttc 240  
cactgacgcc acttgccagc tgggtggaagc cggctgcggg gccttgcgct tgttgtcctt 300  
ctgttgctgg caccgactgt tatcaccaac ctgcgtctgg ggagccatag ggagcacttt 360  
cccagatgcy tccactcgga gctccgactt c 391

<210> 4391  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-057-Q1-E1-A5  
  
 <400> 4391

ggaacttgat gcccctgaga tgaatgtggg cagcttgat gatcatgtcg agatagacat 60  
 caacagtgac gacgacgacc tggagtacac gatgaacaag atgtctataa ccccgaccca 120  
 ctctttctta caccagatgg ccatggacag cgacggcggc ctcagcatgc cagcgaggat 180  
 cagaccatcg acaagccctc cgtcgcggtg ggccatgtca ggagaatcac catagatgga 240  
 agaaacagct ggataacttg ggctgtacaa ggagggtatg actgtcaaac tgatacgggg 300  
 agcttagttt gtagtggggg caaagaaccc attcatttgc agtgtattca gcccaagtaa 360  
 ttcgaaaatt ttgggttgag agtgtgaagt acagatgttg ttagaaaacg t 411

<210> 4392  
 <211> 321  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-057-Q1-E1-A7  
  
 <400> 4392

cgggggatac gagaaagatt ccggtcctgt ttcttggcgc accgcggcga ccggccgacg 60  
 agcatccacc gcctccaagc cgcctctcct cactgcagca gcgtagcgac ttcttctctc 120  
 agctgcagag cctctccgca tcaagagttc cttgccatgg agcatggact gtggtcgagc 180  
 ggagctagcg acaagaacaa ggccatggtt gagcaactgc agagatatgg ggtaatcaag 240  
 tcgagcaaag ttgcggaggt catggagacc accgataggg ggctgtttgt gcctcagggt 300  
 gggctctcca attttgatag c 321

<210> 4393  
 <211> 200  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-057-Q1-E1-B1

<400> 4393

caagaggagc agtggcaggg agagaagggtg aagactacgc catgtgagtt gctgatgttg 60  
tgccttatgc ggtggggata agggatgtgt gatgtgcttg tgtggcgaaa ggcgatgagt 120  
ggcttttcct ttttgcggga ggctgttcat ttttgtctat tctagtttta tattcacgat 180  
acatacaatt agttatcacc 200

<210> 4394

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-B2

<400> 4394

tcacgggaga tatgacgcac gtgacgcaag cgttcgtata cacgcgcata tactcatccc 60  
tatgaacgca tacacgcaca ctctatccct atgagcatct tcgaaatact gattcgacat 120  
atcattttta aaacttacga agtcacgta gtcacctacg tctcatccca ctgaatacgc 180  
attgccagaa atcttgaagt aaatccagga acacatgcgg gcaccaagac ttaattctga 240  
tgggttgga taccacagtt cctctaacca tccaatcaca ggggtgggttc gctacgaagc 300  
acgttattga aatactacct ccctctgggt gcacaggta tacacgtagt tctacg 356

<210> 4395

<211> 55

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-B4

<400> 4395

agaccaccgc aggcaagaag cccaaggccg aaaagcggct gccggcgggc aaaac 55

<210> 4396

<211> 352

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-B5

<400> 4396

cggggaatcg gcagagctcg cccgctacaa caagaagccc accatcacct ctagggagat 60  
 ccagacctcc gtccgcctcg tcctccccgg ggagctcgcc aagcacgccg tctccgaggg 120  
 caccaaggcc gtcaccaagt tcacatcctc ctagactgac ggcgtgcagt tggtttctgc 180  
 atctgcatct gtactcttga ctctgcttat ctatctatct gcaagtagtg gtgggtggtag 240  
 tagtacctgt gctgggtgat tgccaacgct ttgttgcccc gttggttgta agagctgaag 300  
 ttgctgcttt ggcaactga aatctatcta gaactgaagt tgtggtccta aa 352

<210> 4397  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-057-Q1-E1-C1  
 <400> 4397

cgggtcgacg gcaacataaa aaggaaaatc aagagatcta atggaggaca aggtggaaga 60  
 accaaaagac atgaaaggaa gccatagaat ccagaaccca cggggatgta cttattgtg 120  
 taatggtggt agctcagcgc cataagacaa cacacatoga agaagaacct gaagcggcga 180  
 ttgtacgttt taagtctcac aatatcccc tcagttgagg agacaattga tgatgtcaaa 240  
 gaggtgtgta ntgtgctcca tgttgcgcat gtggcgcttc ttcttgaagc aaccagattc 300  
 acgtgacat cctgttgca gtagctgcag tgactgcggg agtgaccctt gccaacagaa 360  
 ggagaaggca agaatggtg 379

<210> 4398  
 <211> 280  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-C2  
 <400> 4398

gatcgccgag cctagccact cccccgcgc atctggagcg acctcccacc gaggtaaacc 60  
 cccaaaacct agtcgccgtc gccggcgccg ccgcagccgc agcagccatg aacgccttca 120  
 ggttcctcgg ggacatgacc cacctcttct cgggtcatcgt cctcctcctc acgatctacg 180

ccaccaggctc atgctcaggg gtgtcaagga ataccagga gctgtacctg gcgggtgttcg 240  
 tggctcgcta cctcgacctc ttcactgact acatctcgct 280

<210> 4399  
 <211> 160  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-D1  
 <400> 4399

gatggttgag caggaccacg tggagggctg gttgaacagg accccgtgga gggctagtgtg 60  
 agcagtagct taagatttcg aggatcgaag cccattgttg ataggatttt gatatgcata 120  
 tgatgtccta tgtatagcat cgagattgat aattgggatg 160

<210> 4400  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-D4  
 <400> 4400

gcaggccacc aggtccacca ggaatgcctg ctattgagta catgtggctc cgaactccca 60  
 ttttggtgaa ttgactgat tctgcaccgt cacttgcctt gtaaccaatg acgccgtgct 120  
 ggatcagcat gtaggtgtat ccaagtgtgt agaatcttgt ccttttactt agcccgcgca 180  
 cttcgcagtc ttgactatg aaccatattg cgcagccggg ttacactaca tccgacagga 240  
 tgacaatagg ccatgtacac atatggttaa taaaaaacgc ttgcaattta attacctact 300  
 ataccaccgt cctggtttta gtatgattta actaataaaa tatgaatgca t 351

<210> 4401  
 <211> 236  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-D5  
 <400> 4401

gacggggccaa ggcgagtcgt cctaggagga agcaagggat gcgcgggcgc gccggggcgg 60

cggtgatgcg cgccgcccgt gctctctgca gatctgactg agggtcagca agtttttgaa 120  
gataatgcac aaacttttaa attagtttct tcgtttatc tcttagattg attctcttgg 180  
ggtagcactg atagctattc cctccgttcg gaattacgtg tcgcagaagc agaggt 236

<210> 4402  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-057-Q1-E1-E11  
<400> 4402

acacggctaa ccatgattag attgtacact ctgcaaaggt tggcgaactt tccccaaaag 60  
aatcgatttc ctccgttga tttcccgac ttcattgctgt ttgagaaaca gatgaccgag 120  
acacagtctt tcagaagcat taactctaac tccgggtaga cagtaccaac ctacatccct 180  
ctacatctgc gagcctacca cttgaagagg tcatgcaact tactcaacta tgttagagcc 240  
cataatagct tgtggctgca cacggaagtt tctagcatga aatatcttag atccctttga 300  
gcctgggtgg cggaccgtag gattgtcaca cgggtactcc gggatatcct aggacaacac 360  
tggattctcc aggtgcccc acaagcaatc cacctagatg tgtattaaag 410

<210> 4403  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-057-Q1-E1-E2  
<400> 4403

gggtcgacgg cattctgcta ctgatataga tgaaggagag gatgaggatg aagaagatga 60  
agttccttca gcagtgggat atggtgctct gtatctgttg acagcttttc ctgtcattat 120  
tggaatatca gttgtgctga tccttttcta caactctcta cagtagcatc tgctcacctt 180  
tgtttctgaa gaagatgccg cctttttctt gtaaagccga gttacaacgc tgctgaatga 240  
gcaccccttt ctctgtctca tagtaaaata gtttctgcaa tggatgaca acattgtaaa 300  
gccttgaggt tgtacactac acgaaaaagg aaaaggctct gaagtattgg ctttttctag 360  
gaaactgaaa gttgattaag aaaaacaagg gaaccagtc aacggaaaaa gcggcgc 417



<210> 4404  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-057-Q1-E1-E3  
  
 <400> 4404

ataccatata tgaagcgacc cgacccgaat ggatcaagtg ctctgtgctc aggtgtcatc 60  
 cctggatcag taatgctgac accacacagt acatcgaagg atttatagca gagtggcaat 120  
 cacacactta ttacatcggt gtctcaaaga gaacttatta caataaatat ggcttaaggc 180  
 catctaataa cgataacagc ggaagactcg gaagataaat ggggccatca actccaacgg 240  
 catcactgag tatagaacca cgacctaaaa gcaccttact cgtcgtctga aaagtctgca 300  
 acatgaaagt tgcagcccga aaacgggtca gcacatggaa tatgctggca atgtaacaca 360  
 tagagagtaa tggaatgaaa caactatact atatgcatat atggccggtg gaaaact 417

<210> 4405  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-057-Q1-E1-E4  
  
 <400> 4405

cggccaagac cccatctcac gaatcaggcc caacttggcc caggagataa ttcaaacgta 60  
 acttctctggt cgccagatc tcatcgagac ccagtgccgg cgctggcgcc gccgtcagcc 120  
 gtttcttctt ccggcgatct tcgacgacct tccaagatcc cacaaagtca ccgagagtaa 180  
 gagcagtgag acgcacctta ggtaatggtc ccttccatgg cctgatcgct gtcgtcgccg 240  
 ttctctgatg aacaactcgc cggaccatct cgtttttctc tcctgcatgt aaaccgatcc 300  
 ttgtcggatc atcaagggga atcaccttgt cgacagttaa tgacacgccg tcctcatcgt 360  
 aactgaatgg aaaaactcgc agatcaagtc ag 392

<210> 4406  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-E5

<400> 4406

tcgacgggaa gaacggcgag ccgaggagga caattagcta catggctgag cgggtggtag 60  
gaactggttc atttgggatt gtcttccagg ctaagtgctt ggagactgga gagactgtgg 120  
ccatcaagaa ggtgctgcag gatcgccgtt acaagaaccg tgagctgcag cttatgcgct 180  
ccatggacca cccaatgtc gtctctctga agcactgctt cttctcgacc acaagcaggg 240  
atgagctgtt cctgaacctt gtcattggagt atgtccctga gactctatac cgtgtgctca 300  
agcactacag caatgccaac cagcggatgc cgcttatcta tgtcaagctt tacatgtatc 360  
agcttttttag agggctagct tatgttcata ct 392

<210> 4407

<211> 371

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-057-Q1-E1-F2

<400> 4407

gggtcgacgg gtcaacacaa atgttctctt aacattgtgc cctcaagggt gctgacatag 60  
acatgcccat gatcaggaaa acataaccat catgcaacac ttgagctagt cttagaggcc 120  
agactangaa tacattttac cgtttattat tccacatgtg catatgagtc cttcctccga 180  
gcctcggtgt tattgcagac tcgagaacca taacagttat agcatggaac ataaacataa 240  
ttatgaactc ggagataaat aatatcattt attattgcct ctagggcata tctcctacag 300  
aaaacacaca aaaaagtata agaatacaac acagcacatt tagggcatca ctaacaaaaa 360  
ggaagctgtt g 371

<210> 4408

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-057-Q1-E1-F3

<400> 4408

cggtcgacgg gtaaaactgaa agtgataaag aaaaactttt aaaaactctg tttgctcttg 60

ttgttgtaac atgaaaagcc agcattcaag tttcagcaaa tattatgaac taaccatact 120  
 cacaataaca cataggtctc acaattactc gtatcaatag cataatcagc tagcgagcca 180  
 taataataaa actcggatga caacactttc tcaaataat cataacatga tataacaaaa 240  
 tggtatctcg ctagcccttt ctgagaccgc agaacataaa tgcagagcac ctttaaagat 300  
 caatgactga ctaaacattg taattcatgg ttaaagagat ccagtcaagt catacccaat 360  
 ataaaccaat aataatgaat gcaaatgaca gtgtgctccc cagcgggtgc 410

<210> 4409  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-G2  
 <400> 4409

cgggtccacg gcgaaacgta agaagataac gttcgcggat gaagctggag gatcgctctg 60  
 ctctgttaag gtgttttagtg atggacagac ctctccttct gcatgccagg gcgagttagt 120  
 aacatcattt tggctgatag tgtcaggcat ttctttcata ataagttggg tttgataatg 180  
 aagaatcaaa aaagatggcc ctgggtttttt ttgttcaaag agagatagat ggccctagag 240  
 ttgggaacca agtaatgggg gaatgcttct gtgtcattgt gtctatactt ttttcttcta 300  
 gcagtgtatg tttagatggg tagagtccat gtgaagtggc ttctaaactg ttccatcaga 360  
 atgccacctg ttgtaatttg taaacaagaa tcgacttgct gcagtttgat gt 412

<210> 4410  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-G4  
 <400> 4410

cggctcgacg gggatataat cccatcagag ccacttatgg agtgcctacc aaagatgaca 60  
 atacctagat ctatccttgc ttttatgcct acctaggggc gttaaatgat agcgcttggt 120  
 gggaggcaac ccaattttat ttttagtttc tttgtttttg cttctattta ggaataagta 180  
 atccatctac cttctgttta gatgtggttt tatcttttaa ctagtgtttg tgccaagtta 240

aacctatagg atcttcttgg atgatagtta tttgatcttg ctataatttc cagaaacttt 300  
 ctgtgtcacg aaaaaaattg ttaaaaatca ccagaatgtg attccaatgc tactgattaa 360  
 taaaaaattt ggctaagtat tcctaatttg gctgaatttt t 401

<210> 4411  
 <211> 301  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-H10  
 <400> 4411

gggccgacaa gactatgcag tcatcaagag acgcagccga gagaccgatg aaagccgaat 60  
 ggagacggtg aagacgcgga tcctctgttc catttgagta gcgtggcgac ggacgtttgg 120  
 gtggacggca gcttgctcct ctgattgttt tgcttctgat gtaaaaaatg ttctctctgg 180  
 tctgctgccg cgacatcaag gggacctgct taatttggtg tgggtgtgcc tacctggtgc 240  
 ctgagtttga cttaatttta tagggttttg cgacggctcct gccgcctttg gcttgtgtcc 300  
 t 301

<210> 4412  
 <211> 82  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-H2  
 <400> 4412

aatcttcaga aaaaaaggac ttcaagttct agacggcgcc gttttgttac tgttgctctt 60  
 ccgcttccca ggaggaggat gt 82

<210> 4413  
 <211> 82  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-H6  
 <400> 4413

aatcttcaga aaaaaaggac ttcaagttct agacggcgcc gttttgttac tgttgctctt 60

ccgcttccca ggaggaggat, gt

82

<210> 4414  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-057-Q1-E1-H8  
 <400> 4414

ggggctctct tgcactcatt atatctatct agagagatga caggaattgg tcattcacgt 60  
 ggttagtcat aaaatcctac ttaaaacttg tagatcactg aatatgatat gtttgattcc 120  
 ttgcaatagt tttgcgatat aaagatgggtg atattagagt catgctagtg ggtagttgtg 180  
 gattagtaga aatacttgtg ttgaggtttg tgattcccgt agcatgcacg tatggtgaac 240  
 cattaggtaa cgaattcgga gcatgaggta tttattgatt gtcttcctta tgattggggg 300  
 tcagggacaa gcgaggggtat tttccaagaa acttatcccc ctagggggaat gcttagtatt 360  
 ac 362

<210> 4415  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-058-Q1-E1-A10  
 <400> 4415

cgacggtaga ggagcccaca tcaacctcaa ggtcaagggg caggatggca atgaggtttt 60  
 cttccgcatt aagagatcca cacagctgaa gaagctgatg aacgcttact gcgaccgtca 120  
 gtccgtggtt ctcaactcca ttgctttcct ttttgatggt cgtaggtctc gtggtgagca 180  
 gacccctgat gagcttgaga tggaggaagg cgacgagatc gacgccatgc ttcaccagac 240  
 cggaggggtgc tttcctggcc cttagaagga gcttgctgca gcctggctgt tctatgtcgt 300  
 atgctacctt tagaactaga gtaaaatgta agaagtgaag gaacttgtga ggctatggtt 360  
 ctgtgccata gcctgagggg ggggtctggag gtgaaacaac atcggagtac tgttgatgtc 420  
 gtgactgaac t 431

<210> 4416  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-A11

<400> 4416

tacgggtcgaa aatacggggc caagtcctac tggcaacggg agaggcgctg acatcactct 60  
 caacccaag gttccccatt tcgctaaccg gaatccggac ttgttggtcc tgcaattcaa 120  
 ctagaagaag cacaattcca tgtgctacag cctcaatgtc aatgtcctcc ctttcttcag 180  
 gttctacagg ggagctcagg gcagggtcag cagcttcagc tgcaccaatg caaccatcaa 240  
 gaagttcaag gacgccctcg caaagcactc gccggacagg tgcagcctcg gccgggcacg 300  
 ggggctcgag gaggcggagc tcttggtctt ggctgcaaac agggacctgg aattcaccta 360  
 caacgagaag ccgacgctgg tgccgatcgc cgaggccatc caaatggaag ctgcctcc 418

<210> 4417  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-A12

<400> 4417

gggtcgaggc ggattactac agaaagtctt atttttgaca gattagggtc ccaatgtggt 60  
 gtttgcttat tttgatgaac caatgattat tatcgagggg tatgacccat agaaaatttg 120  
 gaatacagta gatattacac caatatgaat ttacaaggag ttcacaatag taccaaattg 180  
 gggattaatt tcctaataca aacggacctt acaattttcc ggtaaatttt tgtgttgtga 240  
 agtttcaagt tttgggtaaa gattcgacgg actatggaat aaggactggc aagagcctaa 300  
 gcttggggat gctcaaggca cccaaatgta atattcatgg acaaccaaga gcctaagcct 360  
 ggggatgccc cggaaggcat cccctctttc gtc 393

<210> 4418  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-A3

<400> 4418  
 tcgacgggcg agaacaaatg agattatctg ttgagttttg tgttgtgaag ttttcaagtt 60  
 ttgggtaaag atttgatgga ctatcgaata aggattggca aaagcctaac cttggggatg 120  
 cccatggaac ccaaataata ttcaaggaca accaaaagcc taaccttggg gatgccccgg 180  
 aaggcatccc ctctttcgtc ttcgtcaatt agtaacttta cttggagcta tatttttatt 240  
 caccacatga tatgtgtttt gcttggaccg tcttgtatga tatgagtctt tgcttttttag 300  
 ttaccccaa tcaccttgc tgtacacacc ttttgggaga gacacaacat gattcggaat 360  
 ttattagaat actctatgtg cttcacttat atcttttgag 400

<210> 4419  
 <211> 331  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-058-Q1-E1-A4

<400> 4419  
 cgggtccacg gggagggggc taagctctgt tcgtcgtcgt ctgttagtcg tcctcttagc 60  
 ctgatgtgtt catcgggtgga aatgtgcgtg caattgtttg ttcgtgtctt ggcccatgta 120  
 ttgtgtctgt cctgagggtca caatcttgct gtcacatta cctgaaatga aaatgttgca 180  
 atcggttcta agaaaaaaaa cattaaatca acaacaaata ataacattaa atgaaaaata 240  
 aaattttaat caacacacta aaaaatgatt ttgcatgaaa aaaaaagggg gcccccaaa 300  
 gggttcaagc ttaatttacc cttgaaagca a 331

<210> 4420  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-058-Q1-E1-A7

<400> 4420  
 ctgtgtaact gaatctatcc aggggctggc atttttcgat aaagggtgaa ttttattgac 60  
 tcgaaataaa gcatcaagtt gatataaaca cgatgacaac atacacggcc tctgcataat 120  
 taagacgcac ataaccaata ccaacacaca cacaatgtac ccgctagcaa atagcaaggc 180

catatacgac cacagcattg cataagcgag agaaaaaccc gaagcgaagc gaacaaatct 240  
gcgatcgaca aactacaaca atgaccatat ccacaccaac catctcatga tatkataagg 300  
acaacgggggt tcttcaacag caacgccttc atgatgagag caacgctcga gagccgccgt 360  
catcggattc aaccaccaa ggtaagactc taggttttca ccctga 406

<210> 4421  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-B1  
<400> 4421

gagcatgcac gtaatgcttt atttttgatg acttataaat ttttgcaata agtagatgag 60  
ttctttttac taatgttgag tccatggatt atacgcactt ttaccttccc atcattgcta 120  
gcctcttcgg aaccgtgcat tgccctttct caccttgaga gttggtgcaa acttcgccgg 180  
tgcattccaaa ccccgatgata caatacgctc tatcacacat aaacctcctt atatcttctt 240  
caaaacagcc accataccta cctattatgg catttccata gccattccga gatataattc 300  
catgcaactt tccaccattc cattcatcat catcatgaca taactttactt ttgtcatatt 360  
gccattgcat gatcatgtag ttgacatcgt att 393

<210> 4422  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-B12  
<400> 4422

ttccatcaat gcaagcctct ctaataccgc gcacctttca ccgatatcat acaccaccca 60  
tatacttccc tcaaaacagc caccatacct acctatcatg acatttccat agccattctg 120  
agatatattg ccatgcaact ttccactggt cggtttacta tgacacactt catcattgtc 180  
atattgcttt gcatgatcat gtagttaata tcgtatttgt ggcaaagcca ccgttcataa 240  
ttctttcata gatgtcactc atgagtcatt gcatatcccg acacaccgcc agaggcattc 300  
acatagagtc atatttggtt ctaagtatcg agttgtaaga aaataaaaagt gtgatgatca 360



tcattattag agcattgtcc caagtgagga aaggatgatg gagactatga ttccccacaa 420  
gtcgggatg 429

<210> 4423  
<211> 373  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-058-Q1-E1-B2  
  
<400> 4423

cgggtccacg cggccacgtg acataggatc gctctatgca ccccggtgtca gcagcttccc 60  
tgagaagagc ttctaccagg caacaccaga gaggcaccca tacccttacg aaaggcagtt 120  
tgtgtacggc gctgaggccc accaccaccc tacgatgatg aacgcggctc cctacaccat 180  
ctcaccgcc caccgcgct actacggtaa tggctacccg gtgcagtacc agatacctta 240  
catccactaa tgggggagag ctacaatggc tctttccaaa ctageccctag cttttaacct 300  
tccgctgttg ttgctattgt accaactcat ctaccaatct tgcctagctg aaaatagttg 360  
gaccactcgc ttg 373

<210> 4424  
<211> 379  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB103-058-Q1-E1-B3  
  
<400> 4424

ggccgcacac ctaagggagt tcttgatgca gggggtggct ccgcttcagg cgcactcatg 60  
ccccttacgg atgcttgggg tgtagacgac aagcttcacc tgaatctggt ggctttgact 120  
gatgaggacc tggccgcac tctcctcctc ttggtcgggg atgactagga gtatccgccg 180  
agtgccactg tccccttggt actccgcaag gacagggcgc aggtgggtggc tactatgccc 240  
acatttgatg ggcgcgctct ggtgccactg gcaccccttg tgggccggga gcaacggcgc 300  
cggtggacgc gtcttcgggc gactccctca gangaggagg tgaggaggaa gacgaggagc 360  
gtgactcgga ggtgacccc 379

<210> 4425  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-B4

<400> 4425

gacccacccat tcacctacgc tcttcgcttc ctccgcccgt accttcccc ggtcttctcg 60  
 cttcagatga gttaacgtag atggctgacg cagaggacat tcagcccctt gtctgcgaca 120  
 atggaactgg aatgggtcaag gctgggtttcg ccggagacga tgctccacgt gcagttttcc 180  
 ctagtattgt tggccgtcca cgccacactg gtgttatggg agggatgggg cagaaggatg 240  
 cttatgttgg tgatgaggcc caatccaaga ggggtatcct gactttgaaa taccocattg 300  
 agcacggaat cgtaagcaac tgggatgaca tggagaagat ttggcatcac accttctaca 360  
 atgagctccg tgtagcacct gaagagcacc ctgttcttct tacagaggct cctcttaacc 420  
 c 421

<210> 4426  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-B5

<400> 4426

gggtcgacgg gactgtgcaa agaaagagga ggaagaagcg cgacgtgggc caagcggatc 60  
 acgtcatcac caacttgaaa cagaggcagc tccacaggat gcaagctaag atttgcggtg 120  
 atgcaacgtc aaaacactac taaatgttca cctagctgca tgtcattggc cgatgatgaa 180  
 caacttcatg actgggaaat ctggggcggt acacaagtta atgccctagt atcacaccgg 240  
 catttggaaca tatggcgtag tagtgaaaat gactcatag atggcatttc ccaagatgtg 300  
 cgcattcgga agtgagactg gaatgctcct ggtctcggcg catgaaccgt cgggtggagtc 360  
 gtgggttagtc ccagcgtgac tctacatttg ccagatgctg atagcccgtt cctttcactt 420  
 tcctcc 426

<210> 4427

<211> 399  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-B9  
  
 <400> 4427

cgggtacggt tacgaaatca aattagtctc tttcagtcta gtagtaaaat taatcattgt 60  
 ttatatatca atgcatgaat gacagtacaa gtttggtata gggcttaaag aatagatggg 120  
 ttacattcaa ttctcgctcg gaccggcact cagtacttat cattacatgg taaaactatc 180  
 aattgcactt ggtggttatc acagagttga gatcaagata ctaacacaaa atcatagttt 240  
 ggtggtggat tacttcatat tcatcatgga ggcagcggag aagttaatgg agaggctgga 300  
 gatgtgacca agagagtttc tgggtgcagt ttccgggtcta atcttcgttc ggcggcagcc 360  
 ttctaggttt tttgtctcat attaccaac ctaatttgc 399

<210> 4428  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-C1  
  
 <400> 4428

ggggtccacgc gacatgcaca attgatactc ttgcattcaa aatcattagt cttggatgat 60  
 ttaagggttct attatgaagt aaaatatgta atattcataa atgaatacaa cgggtacgca 120  
 atttttgaaa tggaggctat gtaatcatat gaggtaacac ttttaagtag cggactacaa 180  
 tatccatttc tttttgtgcg cctctacact aacacgtcaa tgcattatgt ttaaagtaaa 240  
 taaccaattg cactaaatta tctatttaca cgagaaatac ataggctgag cgtttgatcc 300  
 cttttttgtg atcgcgccac tacaccgta cgattggcgc cgcccgctg aatgtccaag 360  
 ttatcgggtgc atcatccga gttattgtct ttttttctgg ggtggacttc acaccagtta 420  
 ttaactgctg 430

<210> 4429  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-C10

<400> 4429

gggtcgaggc gaagatggac gccatctact cgacctcgtc ggcggcggcg agcggtctggg 60  
gctacgactc cctcaagaac ttccgcgaga tctccccgcg cgttgccagtc ccacctcaag 120  
ctcgtttacc tgacctatg ctttgccttg gcctcatctg ccgtgggtgc ttacctgcac 180  
attgccctga gcatcggttg gatgctgaca atgctcgcgt gtgttggaac catcgcttgg 240  
atgttctctg tgccagtcta tgaggagagg aagaggtttg ggctgctgat ggggtgcagcc 300  
ctcctggaag gggcttcggt tggacctctg attgagcttg ccatagactt tgacccaagt 360  
atcctcgtga cagggtttgt cggaaccgcc atcgcttctg ggtgcttctc tggggccgcc 420  
atcatcgcca agcg 434

<210> 4430

<211> 347

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-058-Q1-E1-C12

<400> 4430

tccggcgggc cacacagagt aattcctcaa ttggacccaa cacaaaggcc aaattgtatg 60  
gtgtacaaga tgcaggaaaa ggagaatttc acatacccaa cagttaaagg ctttggtoct 120  
cttccaaaat ctacctcat tgcaaagca agagactcaa tcccagtagc aagagtgcac 180  
acagcaatgg caagtggcag ggtcagaaga aatgcagatg cagcagcaga atctagtgcc 240  
gggaaaaggc aagctagang agggactaga gctccaagag gaaggaggag tgctggaaga 300  
ggaggagcta cagctccaat aggagggaag agtgctggaa gaagaag 347

<210> 4431

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-C2

<400> 4431

ggtcgagata tccgggtcga cggggggaca aaattgataa tagcgacaag aaggaagggg 60

cttccgattc tgtggaggaa tcggggaaaag cttctgaaga gaagggccct gagaacactg 120  
atgccaagga agagaagtca gatgatgctg aggagttgaa agggtcagat gcacaatctg 180  
ttaaaaagga tgataaaagc ctttcagaaa atgacaagga gccagtttca agggaggact 240  
tcaaagaata ttttgccaaa tttggcacag tgcggtatgt ggacttcagt aagggggatg 300  
attcaggata ccttaagttt gaggaatcga cggccgcgga aaaggcccgt gcatttgcag 360  
ctcttgcgga tgaagggtgt ttggttatga agggccacct tgtcactttg gaacctgtgt 420  
ctgga 425

<210> 4432  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-058-Q1-E1-C3  
<400> 4432

gggtcgaggc gtacggctaa gagaagacca ccagaattca aggggcagga agaagggcag 60  
canggccaan aagggcgtgg aaacttacag attcaaaacc tcaaggggct gaagcaggtg 120  
caccgggaca tcggcatctc ctccaaggcc atgtccatca tgaactcctt catcaacgac 180  
attttcgaga agtcgcccgg cgagtcggcc aagcttgcga ggtacaacaa gaagcccacc 240  
atcacgtccc gggagatcca gacctcgtc cgcctcgtcc tccccggcga gtcgccaag 300  
catgccgtct ccgagggcac caaggctgtc accaggttca cctcctctta ggctgttcgt 360  
cttcctgtgt ctcgtagtta gctgttcggg tgtgtttgtg gccgtgttat cctgtaagaa 420  
tcgcaccgcg atgttt 436

<210> 4433  
<211> 287  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-C4  
<400> 4433

tactccgaag ggtatctggc gttacatcct gacacacctg accccattgc ggccgatctg 60

gacaaatggg tgggtgttggg catggggcca aaggaccacg gtcgggaggc ggttctcgat 120  
acggtgatca ctccgtcaat cccttaaaca cagctccttc ggatcaaccc gaccctaatac 180  
cagcccacta tcacgcgcac aagcattgca ccgtcactgt ccccttttga ttaccaccaa 240  
cctgtaccta tttccctttt gagctccaat gtcccttta gtttccg 287

<210> 4434  
<211> 242  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-058-Q1-E1-C6  
  
<400> 4434

ggtcgacgcg ccggaagac agcgacgagc ctgaggagga gcggctgcta cggaggctgc 60  
tagcgctcta ccgtgcccgc caagcaaagc tggagtcctg ggaagcgctc gtcgcgaagg 120  
cgagcgtgga catagagaat tgcgcggagg agcttcgggg tcttcgccag gaaactcttc 180  
gggccttggc agacgagcgg gagcagcttg cggaggagcg gaaaggcttc ctcccttgaga 240  
aa 242

<210> 4435  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-058-Q1-E1-C9  
  
<400> 4435

gggtcgaggc caagctgcag tcccagtgt aacgggtgaa cttgcggatg ggcggtgagg 60  
cccgtaggga gttgctgtat aacatcgaat acagtgccga gtactgaagc agtgagtact 120  
gggcaacctt ccctgatttc aacatctacc tgttatcagt acctcagccg cagtcatttt 180  
tactgattat gccttgtttg ctgattttgt ttcttccagt ttgattttga tgatgccggt 240  
gttctttcaa tcaagtaggc acgtgtagtg tttgccgga ctcgaagagc acagaggctg 300  
tagtctgtaa attatacttt gtaacagttt tccaatcat tcttcagtat cccaggcttc 360  
cttttttcgc tggagagaca ggatgagatt ttatttgta ggatttcaga ataaggctct 420  
aatacatttg t 431

<210> 4436  
 <211> 89  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-D1

<400> 4436

tgccatccag ttgctggaca cgatccagct cgctgaggcg gacgagttcg aggtctatat 60  
 gaaggacctg gaggccctgt gtaacccca 89

<210> 4437  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-D10

<400> 4437

gagtcggaca agatcgcccg ctacaacaag aagcccacca tcacctccag ggagatccag 60  
 acctccgtcc gctcgtcct ccccggggag ctgcgcaagc acgccgtctc cgagggcacc 120  
 aaggccgtca ccaagttcac atcctcctag actgacggcg tgcagttggt ttctgcatct 180  
 gcatctgtac tcttgactct gcttatctat ctatctgcaa gtagtggtgg tggtagtagt 240  
 acctgtgctg ggtgattgcc aacgctttgt tggcccgttg gttgtaagag ctgaagttgc 300  
 tgctttggca aactgaaatc tatctagaac tgaagttgtg gtgc 344

<210> 4438  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-D11

<400> 4438

gcaaacgaag gaattgttcc ctgggggctt gccaaaaaaa cccaaaaggc aaaccaattg 60  
 gaaaggccgg tatggaaggt tggccgggaa gggcaacttc ccaacatccg ttacaattcc 120  
 ccacccaatg ggcaaggctg gaatgtgctt ccaccctgat caggacagga tcatcactgt 180  
 tcgtgaatgc gcccgatccc agggcttccc tgatggatac catttcgctg gcaacatcca 240

gagcaagcac aggcagatcg ggaacgctgt gccgcctccc ctctcctatg cgctagggag 300  
gaagctcaag caagccatcg acgccaagcc tcgactggct taagttcact gcactgcatg 360  
atacaagtcc cgtcattttt tg 382

<210> 4439  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-D3  
<400> 4439

gggtccacgc gacaggacta atgagtgaag tgcggtaaag atgggcagtt gctgaaatgt 60  
tccagctgct tcttagccgc ccatgctacc tgttttggtt catcggtgac attcgatgac 120  
tctggccact ttgattgccc tgtttgctat tgccgtaaag ccgctaaagc attggaaaag 180  
gctaagaaaa cataactctga agctagaaaa aaattatctg ttttctgcag cggctggaag 240  
caattttcta aggaacacag tgagctgatg aatggctttc acacagctaa aaagcaaggt 300  
aaccatcagt ctgaagcagc tgagctatgt cgcaaggatg gagagcctag tcatctgaaa 360  
gaaaatggta caagtgatgc ttgtcctgag aatgcagtca ccacaaagac aaccattttt 420

<210> 4440  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-D4  
<400> 4440

ggggcctcaa atacgtcaat gggtccacgc cctccctca cctcctcct cgctcttctg 60  
ctgcccctca tccctctcgc cgctgcagct ccggagaagc acctcgtgac ccacctcccg 120  
ggcttcggcg gcgcccctccc atccaaacac tacgccgggt acataaccgt ggacgagagc 180  
aatggcagga gtctgttcta ctacctggtg ctgtcggagc gtgacccggc catcgacccc 240  
gtcgtgctct ggctcaacgg cggccccggc tgctccagct tcgacggatt cgtctacgag 300  
aacggctctgg attgatccta atcttacctc ccttcgggac cggcagttcc ctttgttgtc 360  
ctcctgtgaa ttg 374



<210> 4441  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-D5

<400> 4441

gacgggggca tggataggca actagtttgt gcgattgggt ggtgatttgc ctctcagcta 60  
 gcttgacgtc catcatctac ccggtgaaga cggatctgcg agtaacccaa catccatcag 120  
 cgcttcattg gagaagcagc aagcaactg aagctgtagc tagctctgga ggccatgcat 180  
 gcatcaatgt gcatttcatt ttactgcctg ctgcttggtt cccttttttg ttgttattat 240  
 tattatttcg gtgtagtaaa aggggaatttt tgctcctgct ttagctcttg ggtctgggtc 300  
 tcggcggttg gttccattgc atcgcatgta gatgtcgtag tagtggtggt caaagtaact 360  
 cctctctcta gtccctagtc tagctgtagt ggctctgaaa gtattgtatc cgatgaagg 420  
 g 421

<210> 4442  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-D9

<400> 4442

gggtcgagac taaggcaaca gatgaagatg atgcagaagc taccaaaggt ggggaagatt 60  
 cagatgattc agatggtatg gacgacgatg ctatgttccg tattgatcct tatattgoga 120  
 ggattttcaa ggagcgcaac aaccttcctg gtagtgaaac tcagcaatct caacttatgc 180  
 gatttaagct tcgtgtgctt actttactgg agttatatct tcagaggaat ccaggaaaaa 240  
 aactggtgct ggaggtatat gctttcttaa tgcaagcttt tgtgaaatca catagcgccg 300  
 atggcaatga gcagttcagg caacgtattg gtggtatatt gcagaaaagg atattcaaag 360  
 caaaagaatg tccaaaaggc tttgatgttg aactcagtag acttgaaagt ttgctgcaga 420  
 aggctctgca tctggcatca 440

<210> 4443

<211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-058-Q1-E1-E1

<400> 4443

tccgagaagg tcaaggatga gatcgctctc gacggcaacg acatcgagct cgtctccccg 60  
 tccgccgccc tcatcaacca gaaatgccac gtcaagaaca aggatatcag gaagttcttg 120  
 gacggtatct acgtcagcga caagggcgcc atcaaggagg agtagagtgc gaaaaaccgt 180  
 cccaccagaa gccgtgtttc tgcctgccgt gtttcacgtg ctttgtgtcg tcgttgctcg 240  
 gattttgaac tttctctagg ctgaattttg tagtgggggt aattattang gatgtgccat 300  
 ggaacatgtt atctttatta tctgtattg tcgccgcgag aatgggtccg acgcttatct 360  
 acccctataa aggctgaaga c 381

<210> 4444  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E10

<400> 4444

gacgcgtacg gctactccag ttattcactt ctgctcatta ggttgagttg aagatgaacc 60  
 tctatctcaa agacgccagt agtagctact aggtcggcgc tattgcatat tctgcaaaaa 120  
 tgtatctcgg ctaccaattt gttggcacga ctcatcttagc tattttcgac aaatgaattg 180  
 gataaaatac tgagcatctc agcccgtgac caatcaacat cctctgtcca tcatgggaca 240  
 gatatactaac agtttggttag ccagagttag caggcacttg atttttggtt tgacgtcgat 300  
 gatcgtgtcc gcttcttgcc tgtttgccct catgtccgcc agtacgtggt gtatattccg 360  
 cctagctga 369

<210> 4445  
 <211> 306  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E11

[illegible]

```
<210>      4446
<211>      462
<212>      DNA
<213>      Triticum aestivum

<223>      Clone ID: LIB103-058-Q1-E1-E12

<400>      4446
```

```
<210>      4447
<211>      419
<212>      DNA
<213>      Triticum aestivum

<223>      unsure at all n locations
<223>      Clone ID: LIB103-058-Q1-E1-E2

<400>      4447
```

1983

tactattaac tatgctctta gggcatcttc aatggctata agatagttgt tgggccacat 120  
aggatthttga tgatgtgtca taaaataaat gaggaagag agtaagattg tatgtacatg 180  
aaccaacacc ctgtgcacaa gcttcaatgt agaataagag agcaccttat ttattatttc 240  
acatcttatt ggacacacta gatacaatct attggagtag ttttatgtta aggcgttggt 300  
tgatgacatg ccatatttta cgaacaagct aacaaacaaa ctgttgagaga tgctcttaag 360  
cagtttcatg tactcgggac tagcanacat gctgatgtgg cagacaaaaa gaagagaga 419

<210> 4448  
<211> 387  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E3

<400> 4448

gggtccagtc tccggacgca gaagacttag cagctttcag gcataacgtc cgagacgaat 60  
ggctcgccag acacctcggc caagaaaagc caagaacaat ggccgcacta acaagcctca 120  
tgacctgctt ttatgcaggg gaagacagtt ggttggaaca gtgcagcccc agcgacccaa 180  
gtacatccga aactaaggat ggaaacggaa aaccgcgacg caacaaggac catcgctgga 240  
ctaaggacaa aagtccgaag agcacggcag tcaatgccgg attcaaaggc tcacgacaaa 300  
atcaagaaaa attgccgccc aggataacag ggacgatcca tccaacctaa ataaaatcct 360  
ggacaagata tgtcagatac acagtac 387

<210> 4449  
<211> 261  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E5

<400> 4449

gacgggggga atcaaagcga gggcttcgct ctacaccgtg agctcccgtg ggcgcgccaa 60  
acacctogag cttaacatgg cgtgaacaat tgtctogata gatttgctcg tcaactgctt 120  
ttatgcacgg gaggtcagtt ggttcgcagg gtgcagcccc agcgacccaa ctgtattcgg 180  
aaactacgga tggaaccggt aagccgcgac tccactagga gcatcgctgg actaaggcct 240

agattccgat cagctatggg a

261

<210> 4450

<211> 316

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E6

<400> 4450

gacacgtggc acgacccaac agaggcccat tcctgtgaaa aggccggcct gtttgacttg 60

gtcaaaaggt ggcgggcccg cccatggaaa gcctgttaac gacctgttcg tatatagccc 120

atttacagcc cgctaacca agggccgcta caccctatcc gaattaggcc cagtagcgtc 180

atctggggcca tccaatatga ttccagccta atttcacttc cgggccatt tagggccaag 240

aagttcttcc ggccaatata agggccaagg tactccttgg ccaataaccg gcccttgta 300

aacctggccg gtatta 316

<210> 4451

<211> 185

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E7

<400> 4451

gacgggtgga gcgaaccagc agaggctcat tcctgtgata aggccggcct gtttgacttg 60

gtcccacggt ggcgggcccg cccatggaat gcctgtgatc gacctgttcg tatctcgct 120

atttgcagcc cgcgaccct cggtctgtta gaccctctcc gagttaggcc ctgtatcgtc 180

ctcta 185

<210> 4452

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-E9

<400> 4452

gggtcgaggc gccgaacac gctgaacaac aggtgatcgc gcgagaagct cttcctccgt 60

aattaagtag cggccaagcg aagaccgggg cagagctgca aatgcaagaa gcaaggagga 120  
gcagagcaga cactccggcg ccggtggtga gctgctgctg aaccggagcg ccagtcagaa 180  
tttcccgctc ccgagctggg ctttctgccc ggtgcccac cagcatcctct gtccatcatg 240  
ggacagatat ctatcagttt gttagccata gttagcaagc acttgatttt tggtttgatg 300  
tcgatgatct tgtccgcttc ctgcctgttt gcgctcttgt ccgcgagtac ttggtgtata 360  
ttcgcgctag ctgatgtect tttgttctac catcagaaac aagaattggt ctcttgct 418

<210> 4453  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-F10  
<400> 4453

ataagtattg tatgtgaaac caaaattgag gatctcttga aaggtggctc gtgacatgat 60  
acgaagccag gcgtgaggaa taacctcaga aacagggggg aaaggagagt caggtttoga 120  
tctcgtggaa ctgtgggtta tgggcccacc atgtgggtta aaagtaggaa ggggtgctggc 180  
atcttgcacg gttatgatag caaggatatg tagaggatag tatgtcagtt atgtcggcaa 240  
caacgttggg accaagggcg agggatgaag agaaccattt tctgctcgt tgaacgaggc 300  
tgaccaatag gcacagttct catccatcgg tggctaccgg aatgtcaaca ccaatagtag 360  
caggggtcttt actgacag 378

<210> 4454  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-F12  
<400> 4454

gggtcgaggc cgagtcataa ttataggtga caccgggtca tgattgttgc aaacactggg 60  
tcaatctgac ctgctcaaaa ctgagaattt gaagatTTTT tccctttata tgtatatcac 120  
ctgtagcccc caagtgtcgg gttgtcatgc tagcagcaac ctgggatttg taattgcctt 180  
atgtcataa aacttcaacc agtgtagccc ccaagggccg gtttagtaag atattactga 240

gctgggactt tgtatataat tcattgataa taatatcata tgatgtaata tccaccatgg 300  
 ggcttgaacc cacgtccaaa aggttaagag ctttgtgctt tacaaactga gcaatggggtc 360  
 cttcaatata atggattaag acttgtgtac cttgaactgt tg 402

<210> 4455  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-058-Q1-E1-F2  
 <400> 4455

gggtccacgg gggcggagaa cagagcgcgt aattaaactc gaataccttt ccgcggcggc 60  
 ggtagagcac tgctattaag cgattttgga gaagacagat gaattcgagt tcctttcaga 120  
 tctagtccat agatttgcac cgctgacttt gagtgtgggg gacgaacttc ttgacaagga 180  
 ggcttccggt ggatctgtcg gattaagccg gtgggtgcac cgatgacagg gatgtgagcg 240  
 ccgcggtagc cgtgaggcct atggacctga acgacaatgg tacttgogag actgcctttg 300  
 cggcggactc gggtcagttg gtgctgagag atgatccaca aacgcctggc tggacaaaag 360  
 acgttcaacg atttagctgc tactcagtcg tctaattatt gtgtgttgge cttttagtcg 420  
 tgtggcaagt ctgt 434

<210> 4456  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-058-Q1-E1-F3  
 <400> 4456

gggtccacgc gtctgtcaca ttcagagtcg tatgtatttt tgcaaataatt ctatgtcttc 60  
 aatgctctgc atggagctac tctagctaatt ttctcccact ttcagtatgt atccagattg 120  
 agacttagag tcatctggat cagtgtaaaa gtttgcaccg atgtaacttt tacaacgaaa 180  
 tcttttatca cctccataat cgagaaacat ctccttagtc ctcactaagg atattcttga 240  
 ctgctgtcca gtgatctact attagattaa aattgtattc ctttgccaaa ctcagaggaa 300  
 ggtataaaat atgtctggtt cacagcatag catactttat agaacctatg actgaggcat 360

aggggaatgac ttttcattct ctttctatct tctgccatgg tcgggtcttg agtcttactc 420  
aact 424

<210> 4457  
<211> 358  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-058-Q1-E1-F7  
  
<400> 4457

ttcgacgggt cggaccagat caggaaggag ctgcgggca aaggcatcgc cctgatggac 60  
gagcctaccg ggacgggtgtg gagaccatgc gaacgggagt agtcgggtgat taatatgtgc 120  
ctggtttaac agatgacagt gtacaacgga cggatcttat tgcgctgggtg cagatcttac 180  
tcatgcaata tcgccagttt tggacgtggt gtttctgtag gggttccaag ttgactcaag 240  
agacgaggcc cgtgttgtgt cggttgttgc gtaggaggac aaattgaagg gtcctccgta 300  
tattggtata cttcactaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagcg gccgctct 358

<210> 4458  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-058-Q1-E1-F9  
  
<400> 4458

acgggcaaga agagcgtcaa gacctacaag atctacatct tcaagggtgct caagcaggtg 60  
caccgacaca tcggcatctc ctcaaaggcc atgtccatca tgaactcctt catcaacgac 120  
atcttcgaga agtcgcccgg ggaggccgcc aagctcgccc gctacaacaa gaagcccacg 180  
atcacctccc gcgagatcca gacctccgtc cgcctcgctc tccccggaga gctcgccaag 240  
cacgccgtct ctgagggcac caaggccgtc accaagttca cctcctctta gattcagttc 300  
ctggcagctg tagttgggtg ctgtttgccc agaattagtg ttgctcagtg gaaatcgggtg 360  
gaatatcggt tagtttgtag ttgggttggg gatgttaccg tgcctatgga ctgatcgatc 420  
tgaaatagca atggtctggt gc 442

<210> 4459



<211> 399  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-G1  
  
 <400> 4459  
  
 aagtatatag gtacttttatg actaatgtga gtccatgggt atacggacac tcagcettcc 60  
 actttgetag cctctattct gccgcacaac ttctgccgggt ttcatgcacc cattacttac 120  
 cttcctcaaa acagccacca tacctaccta ttatggcatt tccatagcca tcccgacata 180  
 tattgccatg caactttcca ttgttccggtt attatgacac gctccattat tgtcatattg 240  
 ctctttgcat gatcatgtag ttgacattgt atttgtggca aggccaccct cataattttc 300  
 ataaatgtca ctcttgagtc attgcatatc ccggtacacc gccggaggga ttcatataga 360  
 gtcatatattt gttccaagtg ttgagttgta attcctgag 399

<210> 4460  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-G12  
  
 <400> 4460  
  
 gcgtctagct ccaggactcc agcatctggt tgcgagaacc aggtagaaag gaaaggggaa 60  
 aagagggaga gaagcaaccg tgagtactaa tcaaaagtac tcgcaagcaa agagctacac 120  
 tacatatgca tgggtgtatg tgtaaagggc catatcagtg gactgaactg cagaatgcc 180  
 gaataagagg gggatagcta gtcttgctga agactacgct tctggccatc tccatcttgc 240  
 agcatgtaga agagagtaga ttgaagtcct ccaagtagca tcgcatagca taatcctacc 300  
 cggcgatccc ctctctgctg ccctgttaga gagcgatcac cgggttatat ctggcacttg 360  
 gaagggtgta ttttat 376

<210> 4461  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-G2

<400> 4461

gggtcgaggc gaggtgacaa tgaagactga tatggttacc ggcagataaa agggggctgg 60

aagggccgct ggcactgcac aactaacatt caggcgctgt cacaaggctg gagaggctct 120

atgcatcgct gctgctattc atgtcactgg aaagctgaaa actgccaaagt ttgattgttc 180

tcaccgtggg aaggctagca ggacaaatat attgcatcat gtgaagaagc aaacaaagca 240

gcaacaaggt tctacaagcc cgggtgtatag gcagatgatg gcgatggctg tgaagacgat 300

caggctcagc catccgccat gaacatatgc ccaagaacaa acaacaatt aatcaagtga 360

atgcatcaaa atgtgtagat acaggtgaca agtgcttgaa ctactagcta gcattgggct 420

g 421

<210> 4462

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-G3

<400> 4462

cgggtccacg ggatgcacac aggatgtcgt cgctaagcat gctagctgtt gtggtatgtg 60

aggggctcgc tgggatccgg ctcgtacagc tccatgagcc tctggctccc attggctgat 120

ctgctgggac cggcttcatg gacgagggtt atggcgaggt ggacgagggt gacggcgagg 180

tagatgaggt tgacgacgga caggggccagc tccggctcgc cgacatgggt gaaggggtgcg 240

gccatagaag agcagatcga aaaaaaattg agccttctcc tcacccgagg aaacaatgcg 300

acaaaggagg gtgaatcaac gcggccgagg cgtggggcgg gggagctccg acgaagcccc 360

gggaagctgc acgagtgagt cgagcagggg agctccggcg 400

<210> 4463

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-G4

<400> 4463

caagcgggca gatatggtga agggatgggc ctcaattcag tcagttccaa ggacaattgc 60

tctcgacgag aagacccgga cgaacctcct cctctggccc gtggaggaga ttgagaccct 120  
 ccgcctcaac gccaccgaac tcagcgacgt cacccttaac accggctccg tcatccatat 180  
 cccgctccgc caaggcactc agctcgacat cgaggccact ttccaccttg atgcttctgc 240  
 cgtcgctgcc ctcaatgagg ccgatgtggg ctacaactgc agcagcagcg gcggtgctgt 300  
 taaccgcggc gcgctaggcc ccttcggcct cctcgtcctc gctgccggtg accgccgtgg 360  
 cgagcaaacg gcggtgtact tctacg 386

<210> 4464  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-G9

<400> 4464

ctaaaaataa agttcttcga ctgaagactt tggatttctg aagactttct gaagactttg 60  
 aaagtgaaga aattggtgtg accttgaaga cttggtattc attcgaggaa catgaagcgt 120  
 gaagacttat gttttcgtag tttcattttc tctttcttga gtcataaggaa acaccgtact 180  
 gttaaagggg gtcgaggaaa tactaaggaa aaatttccat gttatgctca actcaaaatc 240  
 ctacacctac caatcccttc gagtgaagcc attggaaatc tcatacagtc cagtcatatt 300  
 cttcagtgc agagacgaag ttcttctggt ctctgaggaa tttgttctga ctgaggagtt 360  
 aggaattcgc cagtgtggat tgcctacaca gtgaaggaca tgatagccct gaggaatttg 420  
 atactc 426

<210> 4465  
 <211> 367  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-H1

<400> 4465

agctgagagt cactgtcatg gcgcgtcacc tgggtggatcg atctgtcagg cgggcttctg 60  
 gagtactcgc agctaaaaca tcttcaagaa gctatgctaa acttgaagtt ttctcttgta 120  
 aaatggaagt cactgtcgct tgatctcatc tcccgtactg gctacattac cgtgacatgc 180

cgtgtcctag catatgaatg tggctttggt ttggctctag gtgccggaag tagttatatt 240  
 atctatgcat gtatgtacgg ttcgtaccat gtgttatctg gtggtactgt agattaaact 300  
 ggggtgggtgg taataggaca tatcattcga cttgtcataa ctactaagtt agacatatac 360  
 ttcaaaa 367

<210> 4466  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-H10  
 <400> 4466

gactgggagt ggtactgcga gtgggctaag ggtggcattg agactgcgag tttcaccggg 60  
 aatgatatgc agagactgat ggccgatgag caagaagagc gcatacgaaa gaagggtggag 120  
 aaggcaatgg ccactttgca agtctccatg aacagtattt atgacatcaa tgtaccatcg 180  
 aagatatccc tggacgatcc agatgatgaa acaacattgg agcttgatcc tgagttcctt 240  
 cctccaacgg cgtacttaag ctcaagacta ggtgagcatg atggcaacta tctcctttct 300  
 gatttggaat ttgagcatga ccctttttct gggttgcaatt ttgacctgaa gctcaaggat 360  
 gactactgaa atgatagttt gtctagatca acagtattac tctgttgagg tttcatcggt 420  
 cagtgactca gtg 433

<210> 4467  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-058-Q1-E1-H11  
 <400> 4467

gggtcgaggc ggggaatacaa tagatattac accaatatga atttataatg agttcacaac 60  
 agtacctaag tgggtggtttt attttcttat actaacggag cttacgagtt ttctgttgag 120  
 ttttgtgttg tgaagttttc aagttttggg taaagattcg atggactatg gaataaggag 180  
 tggcaagagc ctaagcttgg ggatgaccaa ggcaccccaa ggtaatatta aaggacaacc 240  
 aagagcctaa gcttggggat agccccgaa ggcacccctt gtttcgtctt cattcatcgg 300

taactttact tggagctata tttttattca ccacgtgata tgtgttttgc ttggagcatc 360  
 attttatttt cttttgtttt gcttgctgtt tgaataaaat accaagatct gaaa 414

<210> 4468  
 <211> 256  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-058-Q1-E1-H12

<400> 4468

actacaaaaa aaccaaaagc ccactacagg gcgtggaacc gtattggagg gatggctcaa 60  
 tggggccatgc anaattcaca cgatatggga taccatacca acacacagcc ttagaggatg 120  
 ttggatactt cggcaggtgg ccaagacggc gaggatctcc tcattaacaa taccgaggag 180  
 catcatcccg cagaaacgac aatacagtgt tgacagtctt cgagactttc acctcaaata 240  
 acaggcgcaa gagagc 256

<210> 4469  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-H2

<400> 4469

aagaagggca gcaaggccaa gaagggcgtg gagacgtaca agatctacat cttcaagggtg 60  
 ctgaagcagg tgcacccgga cgtcggcatc tctccaagg ccatgtccat catgaactcc 120  
 ttcacaaacg acatcttcga gaagctcgtc ggcgagtcgg ccaagctggc ccgctacaac 180  
 aagaagccca ccatcacgtc ccgggagatc cagacctccg tccgcctcgt cctccccggg 240  
 gagctcgcca agcacgcggt ctccgagggc accaaggccg tcaccaagtt cacctcatcc 300  
 tagacagctt aggcttgatc ctgcgtcgtc catgccttct gtgtgtacct agtcggcagt 360  
 atgatgttac aatctttgta aggattctgc tgcttg 396

<210> 4470  
 <211> 284  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-H3

<400> 4470

ggtggcgtgg aggtttttctc ggtgtgggtc ttcgctgggc cggggcaggt gcacccgcgt 60  
ggtccggatc ttctcaaccg agctgtatgt cttcggtccc ttcaatgtgg aggtcatcgt 120  
gaatgtcgtc gggaatctta tcgtgctagg tgtcatggct tgggcggcca acatcgagtc 180  
ttgggagatt cagatcttcg tgtttcgctt gctctttcgt gagctggcca ggccaccttt 240  
ctgcttttgg accactgtcg tctccaactt caatgcagcc ttg 284

<210> 4471

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-H4

<400> 4471

cgacggggaa aaccatttgg ggagaagcct atttgattag aatttattag aaaaggcaag 60  
gtgcttcatt taaacctttg gaccttgaaa gttttggccc aatggcttca cttaaacctt 120  
taaaaccacg gcggtggctt aatttggtaa aaattgcaag ccccccaggc ttcacttaaa 180  
taattttgaa agcctttttg aacagcatgg tatttgcaat ggtataaaa gtggccaag 240  
aatggtaggc atccaagttg ggtataataa aaactatcgt aggaagtga ttggatgcta 300  
tgatcaattt gatacttgat aattgttttg agatatggag gtagtgatat taaagtcatt 360  
ctagttgggt gattatgaat ttaaagaat 389

<210> 4472

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-058-Q1-E1-H6

<400> 4472

gtaaaaacaa ttgtcagcat acttaaccag agcttccatc ggctcccca tgtcactgaa 60  
gtggcggttg agccgccta gcttctgctt aaggggcaaa aaatgacaat tcttctctaa 120  
catcaagact actgagccga cattgatacg atccggtgag tgcaggatag ttgagacgcg 180

gcgaccccaa tgggttggtg actcgccctc ttcttgga caagagtcca aatccacaat 240  
cgacatagga tgtttgcatg tatctttaa ttctggataa accgggcttt taacttggcc 300  
catgatccaa tggagttggc aggcagccct tttaaccaag tacgggtcgt cccatccagc 360  
atcatggtga aatatttggc acacgcagca ttgctaacat ccaacagctc catg 414

<210> 4473  
<211> 350  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-058-Q1-E1-H9  
<400> 4473

acattcacca tgaatcatca tcgcccccat gcgtcggtga cttatggcca tgagaagaag 60  
ggaatgctgt gtgggtagta gggagtatgt tgggtatttg tttggttact gtaaagagga 120  
acacttcctt taatagccat tgttatgtgg taggtgggtt agtggtgcaa ccagaggatg 180  
catgtgttct catgtggaag ggacagtgat aatggaaatg agctgggtgt tagttaataa 240  
tcagttagta aaaaaaaca taaaataaaa aaataaagt caaagtctag ctaaagatca 300  
tggacattat ggaaaatctt aaagacaaag ggaaaaaaa gtgcccagag 350

<210> 4474  
<211> 77  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-059-Q1-E1-A1  
<400> 4474

cgggatatta caagaccaga tggcatggt cccaatagtg gtcctgtcga cgacgaagag 60  
cagacggcct ctctgat 77

<210> 4475  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-059-Q1-E1-A11

<400> 4475

tcgacgggga tggatatctac aagggttttg atctgaagaa ctattccttt ctatattcaa 60  
tacctgatac caatgtgcag gagataaaga ttagtccagg aattatgctc ttaatatatg 120  
atcgaacgcc aagttatgtt cctttgagga tattatctat tgaagatgga aagccactca 180  
aattattcaa gcacttggtg caccgcggca agaaaattga ttttatcgag caattcaatg 240  
agaagctcct tgtgaagcaa gaagacgaga accttcagat acttgatgta cgaagtctcg 300  
agctaattga catcagtatt gagaagtttt atgaccgctc agcattaatt tttctgtatg 360  
agaacaatct cttcttgaca ttccganaca gaacagttgc tg 402

<210> 4476

<211> 376

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-A2

<400> 4476

ccggtcaaga atatccgggt cgactggatg ctataatgaa gccgtttatg ctccgccgtg 60  
ttaagattga tgtcatagca gaaatgacgg aaaagaaaga agaaattgtg ccctgcagat 120  
tgagttctcg ccagcaaato ttctatcaag ccataaagaa taagatctct cttaatgagt 180  
tgcttgatgg aagtcgtggc aatctaaatg ataagaagct gcttagcctg atgaatattg 240  
tcatgcagct acgtaaggtc tgcaatcatc cagagctgtt cgagcgcaat gacggaagct 300  
attactttta ttttgoggaa atcccaaatt ctcttcatcc tccccattt ggggagttgc 360  
aagataaaca ttatgc 376

<210> 4477

<211> 332

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-A3

<400> 4477

acgggatagg ggaggggggt ggagacggga atgctagggg gtgtggtctt ggcaggctgt 60  
gagggatcaa gagacgcaat tgtggcctgc agattgagtt ctgccagga attcgtctag 120



gagggccata cggatatgat ctctcttgat gggttgcttg atggtagtcg tgggaatcga 180  
 agtgatgaga agctgcttag cctgatgaag attgtcatgc agctacgtaa ggtctggaat 240  
 catccagagc tgttcgagcg cattgagggga agctattact tttatcttgc ggaggtccca 300  
 tgttcgcctc ttcttctccc atttggggag tt 332

<210> 4478  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-059-Q1-E1-A4  
 <400> 4478

acggtcaaga catcccgggc cgaccgggtt gtcaaatacc tcgatggcaa gcacggcctt 60  
 gcccttgccg tttatgttgc ggcgccggca cttcttcttc ggggcgggtg tgtcttcgtc 120  
 tgtggagtcg gtttccgcac cagcgtcctc actgggggtac ttctctccct cctcagctcg 180  
 agcgcaccta tcggccagaa cataaagctc ggccacatct ttgaccttgt tcatcgtcgg 240  
 ctttcacgca tcttacgggt gcacacattc tgatagaatg cgctgatcac ggtggcggga 300  
 tgaacatctc ggacgttgta ctacaccgg ctgaacctct gtatgtacct gcgccgggtt 360  
 tcaccttctt tctggangat gatattgaaa t 391

<210> 4479  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-A7  
 <400> 4479

cgggaaacac cagacttttg gtggtacctc taattgccat aacttgttcc aagcatttag 60  
 ataaccattg cccaaaccag ttgcttcagt caacagtttg tatgctgagt gaactgaaaa 120  
 tagacctcgg ttatttggct gccatgccca aaaatcttcc cccacactaa ttgggattcg 180  
 tacaattgcc tccgcacaa tacctatgaa gtttgcttcc accttttgca catccattc 240  
 ttcataattc tcaacaagta gttcagaagc atgattggca gtagcataca tgggctttaa 300  
 catagccttg taagaattat tggaagggat tcatggattc tcccacacat ttatagtatc 360

cccatcgccc atccttttga taagaccaat tt

392

<210> 4480

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-A9

<400> 4480

tctggcaacg gtagaggcgc cgacatcaac ctcaaggtca aggggcagga tggcaatgag 60

gttttcttcc gcatcaagag atccacacag ctgaagaagc tgatgaacgc ttactgcgac 120

cgtcagtctg tggatctcaa ctccattgct ttcctttttg atgggtcgtag gctccgtggg 180

gggcagaccc ctgatgagct tgagatggag gaaggcgacg agatcgacgc catgcttcac 240

cagaccggag ggtgctttcc tggcccttag aacgagcttg ctgcagcctg gctgttctat 300

gtcgtatgct accttttagaa ctagagtaaa atgtaagaag tgaaagaact tgtgaggcta 360

tggttctgtg ccatagcctg aaggggggtc tggaggtgaa acaacatcgg agtactgttg 420

atgtcgtgac tga 433

<210> 4481

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-B11

<400> 4481

ccgggcccgc ggggacacca acttgcggtc cgagaagggtc aaggatgaga tcgtcctcga 60

cggcaacgac atcgagctcg tctcccgtc cgccgcctc atcaaccaga aatgccacgt 120

caagaacaag gatatacagga agttcttgga cggatatctac gtcagcgaca agggcgccat 180

caaggaggag tagagtgcga aaaccgtccc agaagccgtg tttctgcctg ccgtgtttca 240

tcgtctttgt gtcgtggttg tgattttgaa ctttctctag actgaatttt gtagtggagt 300

taattaggga tgcgctatgc aacatgttat ctttattatc ctacatattg tcaccgtgaa 360

aaaaaaacaa aaaacagaaa aacaaaaata ggctacaaaa aaataaaaaa aaagcggccg 420

ctct 424

<210> 4482  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-059-Q1-E1-B2  
  
 <400> 4482

cgggtcaagaa tatccggggtc gacgggggatc ttgaaataca gtaggttttaa caccaatata 60  
 aataaagaat gagttcatta cagtacctta tgtgggtggtt ttgctttctt tcactaacgg 120  
 agcttatgag atttcttggtt gaggttttgtg ttgtgaagtt ttcaagtttg gggtaaagat 180  
 ttgatggact atggaataag gaggagacaag agcctaagct tgggggatgcc catggcaccc 240  
 caagatattc aagaatagcc aaaagcctaa gcttggggat tgccccggaa ggcattcccct 300  
 cttttgtctt tgttcattgg taactttatt tggagctata tttttatttg ccacatgata 360  
 tgtgttttgc ttgtagcatc ttgtatgaca ttagtatttg ctttttagtt taccacaatc 420  
 atgcttgctg tacacaaca 439

<210> 4483  
 <211> 201  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-059-Q1-E1-B3  
  
 <400> 4483

cctgagaacg gaagggggcg tgtcgattgc gtctctcac gggatgaacc taaacacgaa 60  
 agcaggggtc tggaagtcaa cgaacttgta agatccttcg agtgagttca gatagattgc 120  
 ttcgcggggc tcttcgctca cgccgctctg catggcatac tccagtgcc tttcatagtc 180  
 aacctgttca acatgctgcg t 201

<210> 4484  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-059-Q1-E1-B4  
  
 <400> 4484

cggctctagat atccccgggtc gaccggggaga atgagaagag acctagtcgg gtctatttat 60  
 aaggaaaaga ctgttaagtg ggcgcaaaaa atgaggagcc caaaaaacat agttatccaa 120  
 ctataaggac gcctcgattt tcggacgggtc actaagacaa agatccgttg agatacattg 180  
 gaagaaccgc gtatttatag caggtgacat catggcgggt tagcacaaat tcaagggatg 240  
 atgtcatggc aggttacaaa aagcttcata agcaaggagc agaagatttt tcttaaagta 300  
 tcgaagattg acatgaacca gttcaaatca atctggggcc taatgttggg gatataacta 360  
 taaggatatga ccctccctgg aggggccggg ttatatctat gagtattctg aagcccaaga 420  
 cc 422

<210> 4485  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-B7  
 <400> 4485

cgggccgacg gggaatgaac ggtgagcagg tgagctctgc tctgcctctg cccagctcct 60  
 ctgcatcagc tgtaacgtta ttctgcttgc gaattttctt agatcatcaa tcagggagcc 120  
 ggagcttgaa tgaaacctga gtaggcttgc gaattttgta tgacctgcaac atcatttggt 180  
 catgaattat atccctggtg tagaagttaa gttgctgcaa tggttgacat tcgattaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa tgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aacgggcccc 360  
 ccaaaggtt caag 374

<210> 4486  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-B9  
 <400> 4486

tgacggggcg tgcttttaggc ccttctggcc agcggagtga acatcccatg cgaatcagcg 60  
 tacttgaaca tatggtgcag gccctccata accaatataa acatcaatat aaacatcagc 120

cccccttaggc tcatcaatca gcagttttgt acttatagca tactaaataa aatgctcttg 180  
 tatacaattc tgatctatcc gtaaaaatgc tgacatgtca aatatgtttg ttacttttgc 240  
 agtttgtag agaagcaatt tcttcgatga tgctggagac tcggctaattg cagttttgtg 300  
 ctggttgcat gaatgtacag tcgtcgcgct ctgagctctg gtgtatcggg atttttaacc 360  
 t 361

<210> 4487  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-059-Q1-E1-C3

<400> 4487  
 gatccttgaa ctaagagccc tagtgcgctc acatctcgta tgctctgcta ctgttgctta 60  
 atgtaaggca gctagcacac caatatttct gtatcttcac aacgcttaat ttttcttcac 120  
 ttgtcctggc tggaagtatg taccaagtat agctatcgaa ggccattcta ttttgctttg 180  
 taaccgggtc aatcgtttat atacatatat atactactca aaaataattg cataacgatg 240  
 gttgttcggt tggtattatt ccataatata caggccgaat catggctgac acggacagca 300  
 agaagatcga tctaccatac tatgcgttga aatatctcct gacgattgta tgtatcgcgc 360  
 tgggttgcttc cattgtttgg taactgacgt ctactanccc actatggatg actgcaag 418

<210> 4488  
 <211> 236  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-C4  
 <400> 4488

tctcacctcc atggcctcca ctttcgacgg tcgtacgctc agtggtgagc agaccctga 60  
 tcagcctgag atgtatgaac gcgaccacat tggcaccatg cttcaacaca ccggagaggg 120  
 gcgtaccact cgcttacgaa gggatcatgct gcatcctgac tgtcctaagt cctatgccac 180  
 ccttacacat acagtgccat atggcacgtg acagacccta cgacgctcac actctg 236

<210> 4489  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-C5

<400> 4489

acggggttatc tcaactgtgtt caccttgtct catgggagaa ggagaatgtg tccagtgagg 60  
 ctcttgaggc tgcccgattt gcttgcaata agtacatgac caagcatgca ggaaaggatg 120  
 ccttcacact cagggtcagg gttcaaccgt tccatgtgct ccgtatcaac aagatgcttt 180  
 cgtgtgccgg ggctgatagg ctccagactg gtatgagggg tgcttttggg aagccgcagg 240  
 gagtctgtgc ccgtgttgcc attgggcagg tctctctttc tgtgcggtgc aagcccaaca 300  
 atgccatcca tgccactgag gcccttcgtc gtgccaagtt caagtccct ggccgcaaaa 360  
 agatcattga gagcaggaag ttgggct 387

<210> 4490  
 <211> 80  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-C6

<400> 4490

gacgggttaa cgaaggtgtg tccagattgt ctcatgggac agggagaagg tgtcgagtca 60  
 tgctcttgag gctgctcgta 80

<210> 4491  
 <211> 225  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-059-Q1-E1-D1

<400> 4491

ccggtcgacc gggagaagta tgtcattgtt agagagcttt caagggcact tggttctaag 60  
 acgcgtcctc cgaattgatc aatactactg gcgagtggct gttgtcgttg ttgttgtaac 120  
 ctgtaagtcc accattatga agctttcgct tgttttacgt gtctgccttg tctatatgtg 180

taaggctaca angaacgaaa tcaatgtaca tatgttacct ctatg

225

<210> 4492  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-059-Q1-E1-D2  
  
<400> 4492

ggatttggat ttatgcagta ctttgatccc aacgatgcgg cagacgcaaa atactacatg 60  
gatggacagg tcattcttgg tagagaagtt gcagttgttt ttgcacagga gaacagacag 120  
aagcctgctg agatgggaac tagagaaagt atcagaggtc ggtcttacga tcggcgggcac 180  
tctccttccc caagggggcg gccatcttac cgcggccgaa gctactcagg gtctccatca 240  
cctcgccccg caaggcggag gttcagagac gagtctccct cgcgctcccg ctcgcccagc 300  
ggatcgagga gtgcgagtcc attggatggg aagtacggca ggtcctcacg aagagagagg 360  
tcgatttcgg 370

<210> 4493  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-059-Q1-E1-D4  
  
<400> 4493

gaccggatct catagccggc aaatctcttt acccgttccg tgatgcatca tcccgcaact 60  
aactcattag tcacattgct tgcaaggctt atagtgatgt gcattaccga gagggcccag 120  
agatacctcc ccgatagacg gagtgacaaa tcctaattctc gatctatgcc aactcaacaa 180  
acaccattgg atacacctgt agagcatatt tataatcacc cagttatggt gtgacgtttg 240  
atagcacaca aggtgttctt ccggtattcg ggagttgcat aatctcatag tcagaggaac 300  
atgtataagt catgaagaaa gtagtagcaa taaaactgaa cgatcattat gctaagctaa 360  
tggatgggtc ttgtccatca catcattatc taatgatgtg atcc 404

<210> 4494  
<211> 383

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-D5  
 <400> 4494

gacgggatac agtaccgggt gggacgtata cacaggcagc tcaagcagag ggtctcggct 60  
 aatggccgtg tgggtgccac tgctgctgtg tactctgcag caatccttga gtaccttact 120  
 gccgaggtcc ttgagctggc cggcaacgct agcaaggatc tcaaggtgaa gcgtatcacc 180  
 cctcgccacc tgcagcttgc gatccgtgga gatgaggagc tggacaccct catcaagggc 240  
 accatcgctg gtggtggtgt catccctcac atccacaagt cactcatcaa caagacctcc 300  
 aaggagttaa tgatatgcaa taacgggtag ttgttggtgt ttgtatcccc gtgatccctt 360  
 gttacgttgt gctacctgtt acg 383

<210> 4495  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-D7  
 <400> 4495

gacggggtaa gggttgcctt gggtaggcgg cacggcatgg gcatgtcacg ccgtccagcg 60  
 gtcggcgctt gtcgttgggt cgccgtacat ggatgcgaca aagtgggtggg atgcagacta 120  
 gcggagaaaa gattccggcg caccctacc tgggtgcgcca aatgtcggat atcgggttcc 180  
 tgcaaaaccc ttaaggttca aactctgggg tgcgcgcgaa gatcttctcc ctactgatcc 240  
 acgcccacaa cctcgccgcg attctaagct aacaagatga acaacacaag gaacacgaga 300  
 ttatatactgg tttaggccac cattgtggtg taatacccta ctccagtgtg tgggtgtgtg 360  
 attaactctt gggctgatga ggaacagtac aagggaaga acagcct 407

<210> 4496  
 <211> 221  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-E1  
 <400> 4496



cggtcagcat actcaaatta gttcctgtac caaaatatga acatacaaaa caattggata 60  
 gtttgtatca agtttttgtg gcacttgcta ccttgatttc aatggagata acggtgtagc 120  
 acaaattcaa agcatctgta tatgtatgct atgcattctt atgcccttca tgcgggatgg 180  
 atatttttga aatcaacaaa agagacagat atattatgtg t 221

<210> 4497  
 <211> 328  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-E2  
 <400> 4497

ccgggtcgac cggagcacia acaaaaccaa aaccaaggct taaccgcagt tccgcagttc 60  
 gtgtgttgct tatattatat gttgctatta tattaccatt attaagtgag ggaggaattg 120  
 attagtcca gtgtttgatt ttgttctgtt tgtcatggta cgaggaaaga tcaccaagta 180  
 gataaggtct ctagtagcag ttggctgta cctaatacagt acccttattt cattccgact 240  
 agtaagtaaa aacttgtttt tccctcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaagaaaaa aaaaagaaat tttattat 328

<210> 4498  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-F3  
 <400> 4498

ggtcaagaaa tcccgggccg actatcacga tgaccggggt cttgtcgga atgatccgca 60  
 tctccatact cagcgaaaat agccgaacga aggtgtagtg cagcggatga aggttaaaca 120  
 tagcaaagat gtcacaaac cgcaggacga tcgtaccccc gatgtcgcca tccacaaagc 180  
 ccttgtcttc tggcaccttg gccacgaaaa ccgggtatgc cacatccttc tctctgagac 240  
 gccgcttctc caaagaaaga aactgtcgt gcagactccg catagcaccg gttgcagcat 300  
 tgagcatatt tgggtgtagc atcgccctac ccgccacatg caccctcttc gagatatact 360  
 gcgggtgaagg tgaccggtca tgagcacgga tcgtactcgg tgccgggtgg ctcgcaacct 420

tcttagtctt tcctttgcgt gt

442

<210> 4499

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-F4

<400> 4499

gggtcgaccg gtaggcatac aaaaatagta aaaacttcca tatagagtat tgaatactaa 60

gagaagtttg atgcttgatg atttttttga ggtatggaga tggatgattt agagtcattg 120

tagttgagta gttgtgaatt tgagaaatac ttgtgttgaa gtttgtgatt cccgtagcat 180

gcacgtatgg tgaaccgtta tgtgacgtag tcggagcatg atttatttat tgattgtcct 240

ccttatgagt ggcggtcggg gatgagcgat ggtcttttcc taccaatcta tccccctagg 300

agcatgcacg taatactttg ctttgataac ttgtagattt ttgcaataag tatatgagtt 360

ctttatgact aatgttaagt ccatggatta tacgactct cacccttcca cctttg 416

<210> 4500

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-059-Q1-E1-G2

<400> 4500

gccccgtagc aaactggctt tgtgaagcag atcatccagg catcgccgat gctggagcgc 60

gcccacctgt tggtcgggca tgtcgtggag gacgaacatc gggagctcgt cggcctgaag 120

atagtccggc gccgccggga ttggcatgag tgtgagagat cggagggtgct caaagacctg 180

tcatacggga tcagttcgcc gcatcttgaa atagtttttg aatgactttt ggtaaaagtc 240

tgctgtgccg gtagaccttc cgttttagg gctttagct gtatgccagg gcctaattgat 300

tatgttatgc tggctctaaa tatagaacaa catgtgtttg tacgtggtat cttgtacctt 360

acttttgctt gatta 375

<210> 4501

<211> 384

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-G4  
 <400> 4501  
 gtctttgcat ttaggtttac cacaataatc ctgctgtaa acaccttttg gagagataca 60  
 catgaatcgg aatttattac aatactctag gtgcttcact tatacctttt gagctagata 120  
 gttttgccct agtgcttcac ttaaactctt ttagagcaca ttggtggttt aattttataa 180  
 aaaaatattg atccctcatg cttcacttat attattttga aagtctttta gaacatcagg 240  
 gtaatttgct ttggttggtga aattagtctt aatatgatag gcatccagga tgggtataat 300  
 aaaaactttc atatacgggtg cattgaatac tatgagaagt ttgattcctt atgattggtt 360  
 tgagatacta atatgatgat atta 384

<210> 4502  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-G5  
 <400> 4502  
 acgggggaaaa gtaccgtcag catgacggcg tcgtgacgat cttgatgttc taccgtcgca 60  
 gcgcttcgcc taagcaccgc tacattatta tccaggatta ttctggaggg ggaaccgcac 120  
 acggttcaga gaacattgat caattgttgc gtcactgggg tgccccctg cctcgtata 180  
 taaatgacca tgggggacgc cgccggttca cgaggagggc gcgccacggg ggaactccta 240  
 ctcatactgc gactaagaat cttccctccc ttgttggcgt atgagacacg gaacgatgcg 300  
 gggaatt 307

<210> 4503  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-059-Q1-E1-G8  
 <400> 4503

cccgggcnga cgggccaggc gatctctctg gaggaccggc gccatggcgg cggcggcgct 60  
 ggcgcaggga actcctcggg cgattcgccg ctgctcctgc tgccgatgct ggacgatgac 120  
 atctcccgtg aggtccagcg cctagatgct gatatggacc gattcatcag ggcccagagt 180  
 gagcgcatga ggcagtctat attggagaaa gttcaggcaa agcagtttga agcgctggcc 240  
 tctgttgaag acaagatcct ccgaaaaata cgcgataaag agtcagaagt gcagaaacatc 300  
 aacaaaagga acctggaact cgaggaccag attaaacaaa tggcagggga agttggtgcg 360  
 tggcagcaac gagctaagta caacgagagc atgatcagcg cact 404

<210> 4504  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-H10  
 <400> 4504

gacgggggggt gggagcctga tctggaagaa gaaatcactt gtagtaacat tggtcctga 60  
 aatgggtgct atcatcggct gtacctaatt gatgttctga tagcccttta gctcgcatag 120  
 aaaatttcac gacgcccttg taatcaaag tagtatcagt agtatttttc aatcaaacgc 180  
 attaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaggggggcc cccaaagggt tacaagttta 360  
 ttttcgcgga aaagagttgt aaaaccctt caaaggggcc cccaaattta attac 415

<210> 4505  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-059-Q1-E1-H12  
 <400> 4505

gccgacggga acctcgattc tcttgagat ctatttgata taatactttt tgcggtgtgt 60  
 ttgtcgagat ccgatgaatt gtgggtttat gatcaagatt atctatgaac aatatttgat 120  
 tcttctctgg attcttttat gcatgattta aatatctttg caagtctctt cgaattatcg 180

gttttagtttg gcctagtaga ttgatctttc ttgcaatggg agaagtgctt agctttgggt 240  
tcaatcttgc ggtgctcgat cccagtgaca gaaaggggaa cgacatgtat tgtattgttg 300  
ccatcgagga taaaagatgg ggtttatatt atatttcttg agtttatccc tcgacatcat 360  
gtcatcttgc ctaatgtgtt actctgttct tatgaactta atactctaga tgcacctgg 420  
at 422

<210> 4506  
<211> 380  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-059-Q1-E1-H4

<400> 4506  
cggtttatat agacaccgga gggggcaagg gtaacacaaa tccggttaaa aggaaggaat 60  
tcacaaaacc gtaatggcca acctggcttc caagccaaag gaaatcccaa ccgggaaacg 120  
gaacaaatcc tcaatcctgg aacctccaaa gccaaaaatt ctggcaaaag ggtaaattcc 180  
ggctgtccgg aaaccccccta atcaaggact ccctcaccca tagcatgcac ttatggtgaa 240  
ccgttatgtg atgaagtcgg agcatgattt atttattgat cgtcttcctt atgagtggcg 300  
gtcggggacg agcgatggtc ttttcctacc aatctatccc cctangagca tgcgtgtagt 360  
actttgtttc gataactaat 380

<210> 4507  
<211> 333  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-059-Q1-E1-H8

<400> 4507  
catcatgaaa ttggtgatgg aggatggttg gtgatgacga tggcgaccga ttcccccttc 60  
cggagccccg aacggactcc agattagccc tcccagagagg ttttagggct tggcgggcgt 120  
tccgcatcgt aaaacgtgat gatttcttct ctctgatttt ttctccctga aactcaatat 180  
atggaagtgg agttggagtc ggagaggcaa cagggggccc acgaggtagg ggcacgcct 240  
aagggggcag gcgcaccccc caccctcgtg gcaaggtggt ggccccctgg ccttcatctt 300

tggcagggttt ttttcttatt ttctgaaaag tgt

333

<210> 4508

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-A10

<400> 4508

tggtaaaaac attgatgtcg gcgtctgccg catcaaactg ccgttctaaa tgggcaaatt 60

cgcaattcgg gttagcaacc ggagcttcaa tcacctgcac ataaaggcat tatggttatt 120

acctgggaat atgatcctct gtctcgtcgtc gtttccgacg ataaccagag tctcaggggc 180

tactatctac acagggcaca cctagcatgt gcaggactat catatattct ttacgtacc 240

tcaaagcctg tcagtagact cataaaagct tcatgcaatc tgctttcggc ggacgatatt 300

ctctccatca ccgtattcat cagcacacgg tggtcatctg agatggccgc tcgccccacc 360

aactccctca gaacatccga tcgcacacta tacggtgccg gactcttttg 410

<210> 4509

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-A11

<400> 4509

ttggctgac aaaaaccaca gctaccaccc gcattaccgc gtgacggacc tgaacgaaaa 60

ggacttctgg cgcattgtcg acgcgtcgca ctacgagcac tgccggcaga aatacggcgc 120

cgtgggcacc ttcattgagcg tctactacaa gagcaagaag gggcgcaagt ccgagaagga 180

ggtgcaggag gccgaggccg ccattcctga gcctgcctac gccgacgagg cctaggcgtg 240

ttcgtcgtcc atcgccgtcg tgctcgtcgt cgcccgccctg tgtctcgccg gtttcgggtt 300

cggtttcttc ggtcgtcgga actctggatt aattgggtcc cttttgcttg gttgcttatt 360

aataagtaga acttgatcga tcgtgtagcg ttga 394

<210> 4510

<211> 373

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A2  
 <400> 4510  
 gtcggaatca cgggtcgacc ctggatggac ctcaccgacg ccgggggactc cgacgacatc 60  
 tcccacaccg tcagctacag cgacatctac aggtgcagta ccccgccccc gccccgtctc 120  
 agtctcatca tgggtgctgta taaattcagt ccaccttgctc actgctcatc gatcgacctg 180  
 cttggcgctcg cgggtacagtt agctcaccat ccgttccgta tcagagaatg ctgccatgcg 240  
 tacgttcaca gtgattcctt gccgaacggt tcgattgcta tgcacctcag aactaactct 300  
 gcggttggta ccctcgacct gtaattagtc cattatatat gtatatgttg catttccaga 360  
 gccaaaatat tgt 373

<210> 4511  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A3  
 <400> 4511  
 tatcaagtat caaattgatc atagcatcca attcactttc tatgatagtt tttattaaac 60  
 ccaacttggt ggccaaccat cctaggacaa atttattacc aatagaaaat acaaggctgt 120  
 ccgaaaaaac tctcaaaata atataagtga agcatgagag atcaacaatt tctacaaaat 180  
 taagccaccg ccgtgctcta aaagatataa gtgaagcact agagcaaac tatctagctc 240  
 aaaagatata agtgaagcac atagagtatt ctaataaatt ccaatcaagt gggtttctcc 300  
 caaaaagtgt gtacaacaag gatgattgtg gtaatctaaa aaagcaaaga ctaatatcat 360  
 acaagattct ccaagcaaaa cacatatcat gtggcgaata aaaa 404

<210> 4512  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A4  
 <400> 4512

ggtcgaccgg cacgtgtttc ctatagacaa tgatgatttt acacgtggaa aatccccatt 60  
 ggtcgggggt gttaacgggt tatcggtacc aaaacccgac ccgatagctt aacagcggtc 120  
 tgttacgggt gatgccacgt gtcggtcacc cttgaggaaa gcacttttgt gacgcgcgat 180  
 ttatcgatcat ggaagtggac actttcatga tgataatttt ggtaatgtca tggaacactt 240  
 ctacgacagc acaggtatga ctatcttgat tctgtcataa atttgtaatg gatgtacatg 300  
 catgacaaaa aagcgacctt ctgtgacaaa gacgtatcat cacggaagtg tattttttta 360  
 gtgatatggg ggacaatata gagtacatgt gtctatcacg agattattcc aatgaatat 419

<210> 4513  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A5  
 <400> 4513

gaagcggggt ccggcgtcta atgaagccgg cggccaaggc attactaggg gcaggaagaa 60  
 gggcaccacg gccaaagacgg gcgtgcagac gtacaagatt tacatcttca atgtgtatga 120  
 tcacgtgcac ccggacctag gcatctcttc taacgccatg tccatcatga actccttcat 180  
 caacgacatc ttcgagaagc tcgccgggga gtcggccaag ctggcgccgt acagctagaa 240  
 gccaccatc acgtcccggg agatccagac ctccgtccgc ctcgctctcc ctgtggagct 300  
 cgccaagcac gccgtctccg atggca 326

<210> 4514  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A6  
 <400> 4514

tcgcgggaac taaattgctg cagcatgtaa ggattgctcg agttgttacc gtttgcgct 60  
 ggttgaactt gtgatcgttg agatccttgg tcttagatga agaaactagt agtatgttgt 120  
 tccattgttg ctaccattg acaattatta ttgtctgttg ctccatcact ggaattggtc 180  
 tgggtgatgt gagatttgtt ctatttgctg gaaattcacc ggcagtaaa gttatgtgaa 240



gctcaaattg tagatttggg catggaagga tagttgataa gcacaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa agaataaaaa aaaaaaaaaa aaaagaaata aa 342

<210> 4515  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A7  
 <400> 4515

gggtccccca ggcaccttta tatacggggg cggggggcac cccatagaca cacaagttga 60  
 tcaacggatc gttccgtatc cgtgtgcggt gccccctcca ccatattcca cctcgggtcat 120  
 atcgtcgcgg agtttagcgg aagccctgcg ccggtagagc atcatcatag tcaccacgcc 180  
 gtcgtgctaa cggaactcat ccccgaaact ttgctggatc ggagcccggg gatagtcac 240  
 gagctgaacg tgtgtgaac tcagaggtgt cgtacgttcg gtacttggat cggtcggatc 300  
 gtgaagacgt acgactacat caaccgcgtt gtcataacgc ttccgcttac ggtctacgat 360  
 ggtacttggg ccacactctc tcctctcggt gctatgcat caccatgatc ttgcgtgtac 420  
 gtaggaaatt ttttgagatt actacgtccc catcaggaat gttcttttcg cat 473

<210> 4516  
 <211> 497  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A8  
 <400> 4516

ccgggtcgac ggaatgggt cacaagatcg atgtgatcgc cgtcggcaca caatctctac 60  
 atttacctac aggattagtt ttaaacctca ataattgtta tttagtcca agtttgagca 120  
 tgaacattgt atctggatct catttaatac gagatggcta ctcatctaaa tccgagaata 180  
 atggttggtc tatttatatg agagatatgt tttatgggtc tgccccgatg gtcaatgggt 240  
 tattcttaat gaatctcgaa cgtgatgtta cacatattca taatttgaat accaaaagat 300  
 gtaaagttga taacgatagt cccacatact tgtggcactg ccgccttggt cacattgggt 360  
 tcaagcgcat gaagaaactc catgctgatg gactttttaga gtctctcgat tatgaatcat 420

ttgacacatg cgaaccatgc ctcatgggca atatgaccaa gactccgttc tccagaacaa 480  
 tggagcgagc aaccaac 497

<210> 4517  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-A9  
 <400> 4517

acaaggagga aaagcccaag gaggagctag gaactgaata tctggtgcag ccgcttggcc 60  
 gtgctgaaga cgaagagcat tccagtgact tcgagccaga agaaaatggg gatgggtgctg 120  
 aggacgagga gattgaggat gacgatgctg aggatggtga ggatcctgtc aaggcgcaat 180  
 cctcatcaaa gaggaagagg tctggtgggg aggatgaaga tgatgacgac ggtgatgatg 240  
 atggtgatga tgatgagaag cctccatcaa agcgatagtc aatttggttcg tgctgatctg 300  
 tgatcttctc tgcttgggcc aagaaggaaa ataatcctca tggagaggat tgttggtaaa 360  
 tgctgtagct ttaggacatc tgtggtaggt gtagcagctc aaac 404

<210> 4518  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-B1  
 <400> 4518

gtctggccag cagattgtac tgctatggaa tacattgaac agtttgatcg tgatggtgat 60  
 tgtatgattg agaatgatgg ttttcctgat caaacttatg atgcttggac tgttcttgga 120  
 gtaagtgcct atttggttg tctttggctt gctgcccttc aagctgcagc cgcaatggcc 180  
 cgcagccttg ggcatgatga ctatgctgac aggtgcatgg tgaaatttgc aaaggctaag 240  
 cacgtgtttg aagccaagtt atggaatggg tcatatttca attatgatag tggaacaagt 300  
 tacagtagcc actccatcca ggcagatcaa ttggggcgac aatgggacac tgcacatct 360  
 gggtttgcac ctctgtttga tgaggacaga ataaaatgca cgcttc 406

<210> 4519  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B11

<400> 4519

```
ccgaccgggt ttaaaattta ttgcgggaag acttctctct aaatgggaag acccctatgt 60
tategaaaaa gtctatcggt ccggtgccat aaaaatcaac aacttcgagg gcacaaatcc 120
gaaggtggta aacgggtcaaa gaatcaaaca ttatatctta ggtaatccta taaatgttga 180
aaccaatatt attgaaaccg taaccccgag gaatacataa gggacacttt ccagaacggt 240
tcagactccg aaaaggaata agtatgtggt acggttaagta aaccgactcc aaaacaattt 300
ttaaggcaat atttctccgt tttggaatat ttagaaaaat agaaagataa gtatcagtcc 360
gggaaggaca cgagggcccc acaagggt 388
```

<210> 4520  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B12

<400> 4520

```
cggggccgac gggaaacgga agaaaaaccc aaggaatccg aatttaacaa gaagttacgg 60
gaagttagga acaacaagga cttgaaggga attaccagga gccacaacct tttaaaaccc 120
ttaaattgga acctggggtc ccaagaccaa cccgggaagg aaaccccggg ccggcgggctt 180
aacgggggta acaaaacccc cttcctaacc acctgtcac aaggtcagga taacctttgc 240
ttaactctgt cgtaaaccat gcaaactaag ccttgccctaa actgtcatag acaacactaa 300
ccaacgaagc gatgggctag ctgatcaaag ccgagcccag tcggagtcgg atcaagagtg 360
tgctgggaac gcaaaggccg cctgcgcttg ccaccgaaaa ggacaacagc gagatacctt 420
tgtgt 425
```

<210> 4521  
 <211> 112  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B3

<400> 4521

gcatgtcgat cgagagtgggt tattgcaaag tatggaaata ggataaggta cgggcgagac 60

aaccgttttaa ataagtgtca agttgaaatt caatgatgta tgcaactgaa gg 112

<210> 4522

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B4

<400> 4522

ggtcggaatc acgggtcgac cgggcttgggt atgtgagata catgaaagtt gcgagtgata 60

taataattaa gggtaacctt aagggtggcaa cattaacaca catctgggtg gattggtaag 120

gggcaccctg aagaaaccag tggacttgtc cggaaccct ggagaaacca gtggacttgc 180

ccagtggatc cgggagtacc tgtgtgatca ccctatggac tgccaaccaa gatcaaaggg 240

attcatcaat ttttcatgac tagaagctta cgtgcacagc cacaagctat tatgggctct 300

ggcttagttg agtaagttgt gtgacctctt acggtggttag actagcagat gtagttat 358

<210> 4523

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B5

<400> 4523

gcatgtcggt ccaagggttt attgctacaa cttggcagac ttcagcgagg cacggagtgc 60

ccttttgtgc ctattgtttg aggcaaaagt ctcgaagact gtcagcactg tatggttggt 120

gtcttccatg ggatgttgct ctgcggtatt tttgatgagg agatccttgc tgctcttggc 180

taccgcgagg agtatccaac atgctctaag gctgtgggtt cgtatggtat ccggtattgt 240

gtgtatcttg catggcctat cgagccatcc ctgtaggacg gttccgtgcc ctgtaatggg 300

ctttgatttt ttggttactg gatcggggcga aaaacaaggg tgcaaccttt ttgtccggac 360

gaggggt 367

<210> 4524  
 <211> 211  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B7

<400> 4524

ggggccgtag tgcgtgaata agagcaaggc ttgaggtggg tcttcatact ctagagcata 60  
 tgcacctatg tagtcgtgaa ctgctcatca agtattttcta gtccaaattt catttcggcc 120  
 ctcttcacga tcctatctta atttctcgtg gattcaagtt ccaatctctt ctatggtgtc 180  
 tgcgaaatgt tgttcaatgc cccgtcgttt t 211

<210> 4525  
 <211> 209  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B8

<400> 4525

tgacagaggc ggccggcgtg acagggggccg tggtcggggg ggtgcacccc ccaggcagag 60  
 tgctggcaca cctagttag ggaagaagat cactttcggg gatgactgag ctccgtgact 120  
 ccgcttgaaa tcgcgagaa actcgaaccc acccctagtg aaatgtcaag tatttccttt 180  
 ttgcctggag acgctactt gctgttttt 209

<210> 4526  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-B9

<400> 4526

cgatctaaag gatatacgcc tttcttcatg gtttacagac caaaggcggg actccccatt 60  
 gatattcgtc atgactcccc ctggggttgc aaacaatgtt gaagcagaca acaagcaagc 120  
 acgtcaataa gcactggacc tgtagatga gaaggagat atggctttgg ctcatattggc 180  
 ggtttaccaa caagaccgt agcgttatca caaccgtcgg gttaaaacaa taacctttca 240

agaaggtgac ttaatgcccc ggctcatcca ggatcagacc gatatgcaca agttatcccc 300  
accttgggaa gggccctttg tggtcagcaa gaatctgcac aatggatcat actacctcat 360  
tgacattccg agaagactca cgcacttctg agg 393

<210> 4527  
<211> 246  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-060-Q1-E1-C1  
  
<400> 4527

ggtcgaccgg gcctacatca aagagaatga ggatcactat ccaggtgtac atgacagtta 60  
cagggcttgt ggagtcgatg agtttgtggc tcagaagctc acaaaatgga atgataacct 120  
catcacttat ttcaatccaa aagtcaattt caaccaaatt ggaaggatgg ccggaatttc 180  
gaaaggtata aggtacaatc caacggtgcc gaattggaaa aatttggtta tggcccaaaa 240  
gaaaat 246

<210> 4528  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB103-060-Q1-E1-C10  
  
<400> 4528

tctgtctcaa catacattct cggttctaca ggacaattta catcaccggg aacaattgca 60  
cccccttcac caggtcgtcg gccgctctca cccggtacta caggacctgg taattgcata 120  
ngcgggggtgg tggctctccgc acatgcttgt tgatgtgtgg ttattggtgt gctcttggcc 180  
ggctccagac gaataagatt cttcatccat agcagcacc aacccttgca gcttccaatc 240  
cgcgggcggg tctcgtcgtc ctctcccaca tgctgtactg gaggaggcaa atcctcgtgc 300  
cccgattcca cactggacaa gctaaccctg aagtgccag cagggatcgg ctggttgtgg 360  
aacgtggggt gcaaggggtc cattatcate ncctttccta cgtccatct 409

<210> 4529

<211> 349  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-C11  
  
 <400> 4529  
  
 agggcaagag gaagaagaag gcgagatcgg ctgtggaatt atttggcggc ttgtcttcgg 60  
 tttcctttgc aattctttct ttccctgggt aattttaccc tgggtgtgatt gtgtgtgtgt 120  
 ccttgcaaaa ctatttcggc tctctgtctg gcctctgcga cttggtagat tctcatggac 180  
 tccatgggtgt tggatgatgt ggaggaggga ggggtgcgtgt tagctaagtt agtccactcc 240  
 ccttgttcgt gttttgtaag ctaattagta gtatcggtag taccagtata tggaactttc 300  
 aatcggttca cgggcgagtt gtgtgctaca aaaaaaaag agagagaag 349

<210> 4530  
 <211> 299  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-C2  
  
 <400> 4530  
  
 ggctcgaccgg ggctcaggcc gcagaggtgg tggaagattc ggccgggggtg acagaggcgg 60  
 ccggagtgc aggggccgtg gtcgggggtg tgcaccccc aggcagagtg ctggcacacc 120  
 tagttcaggg aagaagataa ctttcggtga tgactgagct cggtgactcc gcttgaaatc 180  
 ggcagaaaac tcgaaccac ccctagtga atgtcgaata tttcctttt gcctggagac 240  
 tcgtacttgc tgtttttaat attatcttat tattattatt attgtggacc gtggtggtt 299

<210> 4531  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-C3  
  
 <400> 4531  
  
 accggtcagg tactcgtcga ccggcaagaa gcccaaacg aagaagccgg cccccggctt 60  
 caaaggaggc cggcggcaag gggaaccacc ggggcaggaa gaagggcagc aaggccaaaa 120

agggcttgga aacttccaaa atcaacacct ccaaggtgct caaccaggtg caccccaact 180  
 tggcaatctc ctcaaaggca atttcaacca tgaatccctt catcaacaac atcttcaaaa 240  
 acctcgccgg caattcgccc aacctggcaa ggtacaacag gaaccccacc atcacttccc 300  
 ggaagatcaa gacttccttc ggcctcttct tccccggc 338

<210> 4532  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-C4  
 <400> 4532

ggtcgaccgg tgctctagtg ctacacatat atcttttaga gcacggcggg ggttttattt 60  
 tatagaaata attgatctct catgcttaac ttatattatt ttgagagtcc tttagaacaa 120  
 catggcaatt tgcttttagg cataataaga agctttcata taagtgcatt gaataactaag 180  
 aaaagtttga tgcttgatga ttgttttgag atatggagat agtgatatca aagttgtgct 240  
 agttgagtag ttgtgaattt gagaaatact tgtgttgaag tttgcaagtc acgtagcatg 300  
 cacatatggg aaacattgtg taacaaattt gaaacatgag gtgttatttg gttgtcttcc 360  
 ttatgagtgg cggtcgggga cgagtgatgg tcctttccta caaatatatt cccc 414

<210> 4533  
 <211> 495  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-C6  
 <400> 4533

ccgggtcgac ggggtggacaa gattcacctt acttgggata taattcactt aaggattttt 60  
 tcccaacaat ggaaatgaga ccaaatccac aatgttcaaa cccggcatgt cttgagagac 120  
 agaaagaata tatgcaatca aaacctgcta gagatgcagc agcaaaggct aagatggaag 180  
 ccgaagcatc cgcagcaatt gaatacccggt ttcacatgga taacgagtgg aacattagtg 240  
 ttcttgatga tagtgacaca gcaacgtcaa gcgttcaaag ggctgcaaca gacatccttc 300  
 cagaaggcct tgtccgtgaa cttccagatg aagataccta cgtggaacca cctgctgcac 360



cagccagctg tgggtgccatc gatgacgatc tcgaggagct ccagcggcaa ctcgacgccc 420  
 taaactcatc ttgacctcgc gcagatctgg ctcaaacagt gcattggaaa accaaaccag 480  
 atgccattgt ttgcg 495

<210> 4534  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-C9  
 <400> 4534

ggatggcaga ggagggaaag ccgaggggtgg tgggtggtcgg cggcggcatc ggcggcgccc 60  
 tcctcgccaa gaccatggag cccgacgccg acgtcgctct cctcgacccg aaggactact 120  
 tggagatcac ctgggctgaa ttgagatcaa cggttgaacc atcctttgct gagagatcaa 180  
 taatatatca cacggattac ctccacacag gcaacaatgg taacatcttc ggcattcagt 240  
 atcactgaca catgctgttc tgactgctga tggatcaatca cttgcatatg attacctcgt 300  
 tgtagctatt ggccatgttt ttgcttctgc tggaaagcaga acagagaggc ttacggaatt 360  
 ccagagagat aacgagaaga taaaatcttc 390

<210> 4535  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-D10  
 <400> 4535

tctttctgat cacacagtta ccctacagct cactggggat cttgacaaaa tggttgcact 60  
 acaaaaactg ttggagcctt atggcatatg tgaggttccg agaacaggcc ggcgggcact 120  
 aatccgtgaa tccaggggtgg actccaagta cctccgcggc tactctcttc cactgtaata 180  
 agaagtcatt tgcaacgacg acccaagaag ggtcacttgg ttttggttga gctgagcaga 240  
 atgtgtaggc agctcagctt tttgtgcggc tgtggtcttg tttaggatga cttgtttcct 300  
 ctgtggtaat gtgttgactt gtcgaataaa ttgctcttgg tagatgcaag tcgaggtttg 360  
 cccatgtatt gcatcgacaa gcagaataag tacatgcctc ctttt 405

<210> 4536  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-D12  
  
 <400> 4536  
  
 tgaagaacg ctattgtcca cccagtgta tccttgcaac gtgcgttttt gttaaagtcc 60  
 ggaaccctgc acaatgaccg gttcct. ,a gttttgtttg tcttgctgga gttatagatt 120  
 gtgttatctc gattatgtgc cgtgctggca tttggatctt aatcttaatc cgttcgtctg 180  
 gcaccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 attaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
 t 361

<210> 453  
 <211> 244  
 <212> DNA  
 <213> Tritic.  
  
 <223> Clone ID: LIB103-060-Q1-E1-D2  
  
 <400> 4537  
  
 ggtcgaccgg gcaatcacta aaatcgatca gcattataag gtcaagctgg gagaagactg 60  
 ataggttcct gacgttcaag ctctccctc gtagactgac tgcagtcacc agtgcaagca 120  
 gattcttggt ctgccaggg catccccact cacagatgtg atggtgtgat attgataatc 180  
 cattggctag ttctcatctt gtggtgtgat gatggaata aagcattgat ttgtttggtg 240  
 ccgc 244

<210> 4538  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-D3  
  
 <400> 4538

ggctgacggg cagaccaatg ggaaagaatg catatttaac ggacacaact cgaatccttc 60  
 gagatctgct ttcgcaatta gaatctctcc gaaaggagaa tagcaccctg cagaatgaat 120  
 cccattatgt tacaatggag aggaatgagc tgcaggatga gaacgatgtg ctccgcaacg 180  
 aaatactgga gctacagaat gaactggcga cgcgtcctgc aggcaaccca ggttgggggc 240  
 atgctactgc tggatgcct cagctgcga gcacagtttt cccgtcacat cagccaatgc 300  
 agccgagcaa catcgcaagc gcagtattcc cctttgcagc agcactgcaa cagacaacca 360  
 tcttgaaca accttatgca ccaccaacac caccacggg 399

<210> 4539  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-D4  
 <400> 4539

ggctgaccgt gtttgtacat tcatctactc ttctgtgca tcagccattt gactcgggtga 60  
 tggaaaattc tagagtgaat atagtgtctt tagatcagtc agtggtaccc gtcgaagcgg 120  
 atatgttgct gggtacagat agtttctcaa aagagtattc agagataaat gaccagtcct 180  
 atccccccag aggtgtacgc tctaacttgg taggggtata ttgctcatat caatcatatg 240  
 gtgtcttgca ttgctgtgcc atcttcttag tttagacatg ctttgtgtga atgctacttg 300  
 tttagtttct atattatata tgtgaattat gcaatgccat cttgttttagc tgggcaacat 360  
 atatgtgaat tatgcaatgc catcatgttt agccaagaat catatatgtg aattatgtca 420  
 tgccatcctt tttccatta cgtattccat ttatcgacaa t 461

<210> 4540  
 <211> 315  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-D5  
 <400> 4540

gtgaagagag ctcatgtcc accccagtg agtcttgcaa cgtgcgtttt tgtaaagtc 60  
 cggcactctg cacaatgacc tgttcctttg agttttgttt gtcttgctgg agttatagat 120

tgtgttatct cgattatgtg ccgtgctggc atttggatct taatcttaat ccgttcgtct 180  
 ggcaaaaaag aaaaaggaaa agcaaaaaaa aagcaaatga aaaaagaaga aaaaagaaaa 240  
 aaaggattaa cacaccataa aaaacaaaat tgaccggaaa aaaaaaacgg gccgccccaa 300  
 gggttcaaac tttag 315

<210> 4541  
 <211> 506  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-060-Q1-E1-D6  
 <400> 4541

ccgggtcgac cggcccttca cataaacaac cgccatttgt agaatgctct tttgcttcac 60  
 ttatatattgt tagagcgtgg gcatatcttt tgtagaaaga attaaactct cttgcttcac 120  
 ttatatctat ttagagagat gacaggaact ggatcattcac atggttagtc ataaaatcct 180  
 acataaactt gtagatcgct gaatatgata tgtttgattc cttgcaatag ttttgcgata 240  
 taaagatagt gatattagag tcatgctagt gggtagttat ggattagtat aaataactgt 300  
 gttgagggtt gtgattcnog tagcatgcac gtatggtgaa ccgttatgtg atgaactcgg 360  
 agcctgattt attcattgat tgtcttcctt atgagtggcc gtcggggacg agcaatggtc 420  
 ttttctacc aatctatccc cctaagagct tgccgctagt actttgtttc gatgtctaata 480  
 agatttttgc aataagtgtg tgagtt 506

<210> 4542  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-060-Q1-E1-D8  
 <400> 4542

ccgggcccgc cggggcagca acagcatcat gggcagcatc gcctcgtcca tcggcaagat 60  
 gggccggcgc aaaaccgaca gcagcgagct gcaggtgcag gtcgacgaca agccatagcc 120  
 atggaatgaa tgccgagcct ctacgattc attcattcac tcaccgtgtt atcacgaagc 180

atcataatac gtcacgcca atgatggagc tggctgctac tatttttgta gattatTTTT 240  
 cttataatTT tggggagatt ggcaattgTT ccatctgtgt agattcgatc ccaagctata 300  
 ggctagatcc agtcagtcca aataagtga gagtgcggtc gttgcttggT agccccatc 360  
 cacaccctc ctggagttgc tgaaaggTTg tacatgtccg gattgagagg ggttgttggc 420  
 cccgacatga tgataatgag aaccagTac aaatacaana acggaaacgg ccccgtaac 479

<210> 4543  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-E12  
 <400> 4543

gccggatata taaaaaactt tcatataaag tgcattgaat actatgagaa gtttgatcct 60  
 tgatgattgt tttgagatat gaagatggTg atattagagt catgctagtt gattagttgt 120  
 gaatttgaga aatacttTgT ttgaaattTg tgattcccat agcatgcacg tatggTgaac 180  
 cgTtatgtga cgaagtcgga gcatgattta tttattgagt gtcttcttta tgagtggcgg 240  
 tcggggatga gcgatggTat tttctacca atttatatcc ctaggagcat gcgcgtagta 300  
 ctttgtttcg ataactaata gatttttgca ataagtatgt gagttcttta tgactaatgt 360  
 taagtcatg gattatacgc actctcacc ttccaccatt gctaacctc 409

<210> 4544  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-E2  
 <400> 4544

ggtcgacggg atgaaaatga ttagaatgcc atctttatga aagcagggtt tagcgactac 60  
 aaaattgtca agaagctTgg agctcgTggT gtcatggaag tctatccata agtttTgtat 120  
 gcaaattgtTg tgatggTgac cgTttggTat aaataaagta cgtagTggTg tgctataaga 180  
 aataaataag ggagtctggT gcctTgcttt ttaatggaaa acacaatgga actcaaatta 240  
 gtagttcagc ccgtgcctTg tcacaacata accggagcgt gtattttaaT tagttttgag 300

aagtattgag tcactcagtg tgtgtctgtg tacacggat gtctgtatgc tccaacatgc 360  
tgaaatatca agtttatatt atgtt 385

<210> 4545  
<211> 265  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-060-Q1-E1-E3  
  
<400> 4545

ggtcgacagg ctcttcaagc tgacggaggg tgcaaaaccc aaaggagaaa attgacaaaa 60  
tgtttaaagg cgaaaagata aataccacgg agaaacagtt aattgctcaa ggtggctttg 120  
aaacccccag aaaatgcata cataacaatt gacggtgtga acttggcccc cgaatttggg 180  
gcggtaaagg ataaaatcag gcagtttcca aaaactttca ggattggccc atggggtggg 240  
gcaaccggga aaccgttgac aaatg 265

<210> 4546  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-060-Q1-E1-E4  
  
<400> 4546

ggtcgaccgg ggcacataac tcagtgcgc ttatatcgat ctcccctata tgtacccatc 60  
catgcaatgt gtttatgcag catcaagtta ccaaccaagt tcagaagatt aagaaacaag 120  
cttcttgagg tccatttagc cgcctgttcg atcaacaatg agtccatgg acgtcacagg 180  
caccgaaggt ctgccgttg attcgtggca gaagtcgtgg ccagaggtgg tgggcaagtc 240  
cataaaggag gccagggaga tcattctcaa agacaagccc gacgccgaca tcgtcgtgct 300  
gccagccggg tcgccgtga ccccgactt gagggccaac cgcgtgcgca tcttcgtcga 360  
taccgtcgct gacacaccct tcactggcta gctct 395

<210> 4547  
<211> 483  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-060-Q1-E1-E7

<400> 4547

acggtcaaga tctccgggtc gacgggtggg taataaaggg atatgatcaa agtggttactt 60  
gccttgctga cgatttgaaa accctagaga gtaatagtag caagcctcgc acttcggaaa 120  
ctctatcgtg aacaaacaat ggcatacata agcactcaag cataagatgc aagggtaaaa 180  
ctcaaaagaa aagatccaaa ctgaacgttc aactgaagag ctttgatttg caaaaagaat 240  
caatcgaatc ggacctacga acacaaactg cgatcaaacg aagttcaaata tcaaatactgc 300  
ttgaaaccaa attttaattt gttaaaacca tgttcaagtt gattatctgg aaagagggta 360  
acaagacgaa gattttggcg ttggtttcac tggatttgga cgaacgagca aaaagtagcg 420  
agggtttgaa gatcanggac taatctgtga tagaagtatt cgtggatagg tccctgnccg 480  
ctc 483

<210> 4548

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-E8

<400> 4548

gggtcgacgg gagactgccg gacacatacg agaccttggc tcggctctct cccccgctac 60  
agtaggagag gcgatttttt ccccttcccc gtctgatcta gtctgcgggc ggaggctcgc 120  
tggtttcccc cctctgccg gccgcttcgg cggcgggagg gtgggggaaac ctcggttccc 180  
gtctgtacat agctaggatg gagtgggtgg ttcgccggca gcgccgtgga gaggaaggcg 240  
ctgtcgggtt ggtggtttgt ggcggcgggt atcttctccg gtggcggggg tctgcggaat 300  
ccgaccactt cccgcctcc ttctggtgc tcgtaactcg gcggagttgc cgtgcgcctt 360  
cttcccgtgc cggagtccgt aggcggcggc tccggttgtt gaaagtttg 409

<210> 4549

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-E9

<400> 4549

gggcaaaggc gcacgtgcag aagggttcca agggcccaaa gattggcggc ggcgggcgga 60  
agcgttgaaa gtgcgttgaa agtcgattac gccaatagac atagagttgt gctgcctagc 120  
cttgtttcct atcctactat catagacctt tgtcaagtta ttaccccgcc ctcttgaatt 180  
tgcaccttat ctgtgaggct gaatggtgtt aacgttttgg attgtctcga tgagtttatt 240  
tataatgaat ggtacttatg ttggttccaa aaaaaaaaaa aataaaaaaa aaaaaagga 299

<210> 4550

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-F10

<400> 4550

ccaaggaaac aaaggccccg gccttggaac cccccccct cctcctccgg cccccggcgt 60  
tggcggaact aacaaccacg ccaaccaaca accccaacac caccaccacc agcaacatga 120  
agggaactac ccaaattgtt aaatttgcta taagtttcat cctggagggtg caagggcctg 180  
ttggcatcgg tatgatgatg aacatgaaga gaagaagaag gccaacctcg tcaccaactc 240  
ctacgggatt gatacaaatt ggtacgcaga ttctggagct accgagcaca taacggggga 300  
actagacaaa ttgacaatgc gagaaagata ccacggaggt gacaaaaaag caatccaatt 360  
ccccaccagc cccctcgac ctccggcgga atcaccgcac ctctccc 407

<210> 4551

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-F12

<400> 4551

ttgatcagaa agctgcgaag aagggtcaga tgccctcgca aatcgggtgt ctgccccgtg 60  
acaagcacgg tatccccctt gtgaaaagcg ttaccggaag caagatcctc cgcacacctca 120  
aggctcatgg cctggcgccg gaaatcccag aggatctgta ctttttgatt aagaaggctg 180  
tggccattag gaagcatctt gagaggaaca ggaaggacaa ggactccaaa ttcaggctca 240





aactaaatgg accagaagca ttgagaagc taattatcac gtctacaagt acaa 414

<210> 4554  
 <211> 501  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-060-Q1-E1-F7  
  
 <400> 4554

ccgggtcgac gggatgatgat gactaaagca cgccgcttga cttacgagac acataccagc 60  
 agcgtagggt catatcgatg ccagacaatt tgcttgagt atcacagtac tgggtactccc 120  
 tatagtacct actacagtac tatgccctag cttgctagag tagattagta gagtaggact 180  
 ctgctccact actagcaccg gaggagtagt atattctaata ctaaaatagt taaaacttc 240  
 gatgcccgat catggaacga ctatgaaccg tgctcaaaga ccgtgtctac gtgggtgtttg 300  
 gacttatatg caaaaaatag caagatgccg tgcattgcac ggcacaccat catcaccaac 360  
 tcggtttttt ctctactcct actcctatag aagacttagt tggatgatgat ggggggtgagg 420  
 aggcgtgttc agccgggggt gcagcggacg ggcgcagcact attcgatttg ttacaaaana 480  
 gtactttagt agatagatac a 501

<210> 4555  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-F8  
  
 <400> 4555

ccggggccgac agcctcaagg aaaagatcca cgacaaggaa ggtatcctgc cggaccagca 60  
 gcgcctcatc ttgcgggga agctgcttgg cgacggccgc accctggccg actacaacgt 120  
 ccagagggag tccacgcttc acctcgtgct gggcctcgcc ggcggggaca agggctcctg 180  
 ctaccgccc aagatggagc ctaacctgct cgccctcgcg ctcaagtaca ggcagcacag 240  
 gcttggtttgc cgcaagtgt atgcacgcct gccctcagg tctgccaact gccgcaagaa 300  
 gaagtgcggc cacagcaatg agatcaggcc caaggagaag ctgcgctacc actgaagcat 360  
 tggaaaacttg accctgggag acatgccata gctggattaa ctgggagttc 410

<210> 4556  
 <211> 422  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB103-060-Q1-E1-G10

<400> 4556  
 caggctcaag gattaggctg caacagttct taccccatag ggttacaacc ttttttcctg 60  
 gctttgtggc aaattgtttg ggaaccggtt tatgcattgc aattgcaacc ctgagctgct 120  
 gcaaagtgtt gaactgatga ggtttatgca ttttgaactt aatagtaatg ctatttgcac 180  
 gccttcaa at ttggaagcaa atgtttcagc tgtgccaaaa aaaaaaaaaa aaacaacaaa 240  
 aaaaaaaaaa tgaaacataa acaaaaaaaaa aaaaaacaaa ccatacaaat aaaaacccaa 300  
 agacaaaaaa aagagcacat ccaacccaaa caaaagcgac acgggaaaaa caagataaaa 360  
 acttgcttca aaaggccccc aaaaatttcc ccataactcc aaaaaaaaaa aaacggcccc 420  
 cc 422

<210> 4557  
 <211> 406  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-060-Q1-E1-G11

<400> 4557  
 ggcataatga cgaaattgca aagattccca agtggatgac taaggcctag gaggatatca 60  
 acgctgaaaa ctcaaggatg gccgatttgc aagctcacat caatataaag gcggagcgtc 120  
 tgaaaacacg ggcttggcgt ctaaaccctg agcagaatgc ttccaacgca gttcatgagc 180  
 ggaggtacct aatgcggctt gaaactacgt cggtatttcc ccaaagagga agggatgatg 240  
 cagtacagct atggtaggta tttccctcag ttatgaaacc aaggtatcaa tccggtagga 300  
 gaaccaagca acactatgta cacagtacct atgcacaaag aacaaaccct tgcaacccaa 360  
 catgtaaggc atcaatctgg tangagaacc aagcaacact aaaccg 406

<210> 4558

<211> 159  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-G2  
  
 <400> 4558  
  
 ggggtgatgg aaaagttctt ggttcctagc ctcaagacct tctctctgca accgtacgac 60  
 ccaaaccagg gattaattcc gggcggaac aataaggcgt tgggaattcc cccgaagggt 120  
 acctaatggc atccaatcaa ctccccgggg cttcgaacc 159

<210> 4559  
 <211> 132  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-G3  
  
 <400> 4559  
  
 gggctgaccg ggcaaagctt gtcaaagatg cctttgatcc ggcaaaagaa aaaggcccct 60  
 ggcaccattt taattgagga attggagcca attggcgcaa accgttttgc catccagtta 120  
 ttgggggcca cc 132

<210> 4560  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-G5  
  
 <400> 4560  
  
 accggtcagt actccgggtc gacgggcagt aaactcacat cacgtgacaa aagggaaaaa 60  
 tagagcgggtg cccatagagg tacgtgccat acggcctatc ccagaggagt cccgccactg 120  
 gttgttaaaa ccaatcacct tcgaccatca ggattactct agaagtatcc ggtatgcagg 180  
 atggactgcc ttgatattag atctgataat tgacggactc caatttacac aagtcctaata 240  
 ggacggcggc agtgatctaa acctgctata ccaggacaca agccgcaaaa tggggataga 300  
 cccaacaaa attcaccata gcaacacttc ctttcaagggt gtaatgccag gccacatgc 360  
 ccattgtacg ggctctctac tgctagaagt tgtg 394

<210> 4561  
 <211> 513  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-060-Q1-E1-G7  
  
 <400> 4561

```

ccgggtcgac cggaggtgcg ccattattca tcgacgagct catccaaaga gcggaggcac   60
aaaagaagag gaagagcatt cacacggggt catatacaca agatgaggac aagtttattt  120
gccaagcttg atggagatta gccaagatcc gaggaccggc gcgcaacaaa agggcattgt  180
tttttggacg agagtccaca gaacattcca tgaaaggaag atgtttaagc cctaccaaatt  240
tacaagcaac cgtggcatcg gctctattca aaaaagatgg ttgttcatcc aacaagagtg  300
caacaagtat tgcgctgcat ttgagagcgt tgaagcacgt cncgtgagtg gtctcggcgt  360
tggggacatg gtatgctctc ctctttccag ccctttcctt gctacggcca tgagacttcg  420
gccgtgtata tgtttgcatg ttactttgtt gttgatcatc tgggtgtaggc atttcaatct  480
ttggaggcat tcaaggcccg acacaatgac aag                                513
  
```

<210> 4562  
 <211> 488  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-G8  
  
 <400> 4562

```

tcgacccgac gggtgattta atttattgat tgccttcctt atgagtggcg gtcggggacg   60
agcgatggtc ttttcctacc aatctatccc cctaggagca tgcgcatagt actttgtttc  120
aataactaat agatttttgc aataagtatg tgagttcttt atgactaatg ttgagtccat  180
ggattataca cactctcacc catccacctt tgctagcctc tctagtacca cgcaactttc  240
gccggtacca taaaccacc atataccttc ctcaaacag ccaccatacc tacctattat  300
ggattttcca tagccattcc gagatatatt gccatgcagc tttccaccgt tccattttatt  360
atgacacggt ttttcattgt catattgctt agcatgatca tgtagttgac attgtatttg  420
ttgcaaagcc accgttcata attctttcat acatgtcact catgcatcgt tgcacatccc  480
  
```

ggtacacg

488

<210> 4563  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-060-Q1-E1-H11  
  
<400> 4563

ccggaacgac gacgtgagat gtggacgagt cggatagaaa gctcttagat gatgaaaaga 60  
aacccgatat cacgaaacga ccacacactc ctattggaga tgaggtggaa tgcaagaagc 120  
catagatagc agaaggctca aggtgcccaag gagaagaacc tgatgctgga gggataaaga 180  
attcctcctg ggtctgatga caggggaatg cagtaaacac cagaagcatc aaaactatga 240  
tctggaacag tatcctgaat aaactatttt ctggattatg aatgaattct gaagcatggg 300  
gctataagtg aattatgtaa catggatttg taactatggg ggatgttaag ttaacgttct 360  
atcagtgcac cgtgaatgag tgctcaaaaa aaaattaaaa aaattattca aaaa 414

<210> 4564  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-060-Q1-E1-H12  
  
<400> 4564

ggggatctca cacaggacgg cgtaaaaggg caaattgcc acaacaatgg ccaaaaaaac 60  
tgggaaatgc acccctgat gaaattggac caccacccc tgctgaacct ggaaatgctg 120  
cttcaactgg attcaaaaaa ccgcttggga ggccgaaaaa ggagaaacaa cctgcatcaa 180  
tctctgctga aactggagat gcaaccctg ctgggactgg tgatgctgaa actggagatg 240  
caaccctgc tgggactggg gatgctgaaa ctggagatgt aaccctact gaaactggag 300  
cagcaacgcc tgctgaaggg ggaaatgctg catcgacagg gatcaagaga ccgcttggaa 360  
ggcctagaaa ggtgaagaag tttgggaggc caagaaa 397

<210> 4565  
<211> 325

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-H2

<400> 4565

tcgataaatt taatctcatc aaaagatcgg gacaccctcg cctctatcaa gtggtatcag 60  
 ttttcaggtt gctcgggtgag aatttctagt ttcccctaaa ttagattttt tttcttacca 120  
 attgtcaaaa aaagccacaa aaaagttaga tctattcatc cttttgtcaa agccagtctg 180  
 agcctttgca attttctttt cattgtttgc attattgaat tatcggttgc atcgctcgtg 240  
 cgagttgctg gtcttagtgt ctagttcgtt tagagtttcg agttctgttc acattagtca 300  
 tgtcgccgct gcatcgttat ccctc 325

<210> 4566  
 <211> 193  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-H3

<400> 4566

ggtcgaccgg tccctgcca cggagcaaca actagcatta gtaccctact gcaacgcaac 60  
 gcccagggag ctaggcaagc caacctacaa cctaaacaat tgttcaatgg gaactccaat 120  
 aaccaactgg gcggaacctt gccaaaggccg aaggtaaaat ccggccccctc ctccctctcc 180  
 tccgggggtt ccg 193

<210> 4567  
 <211> 297  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-060-Q1-E1-H4

<400> 4567

accagctcac gaaccaaagt tcaactgcaa tggagttgat tgggaagaag ttaagtaccc 60  
 caggatgaat ttggtcccc aacaggagag gtaggatcca acttctttca agggaacaca 120  
 ggctcaagag gttctccac cacaggacca caggctaaaa gcaagggaca agcttcaaga 180  
 ggagattgat gcatttgaag aagctcccaa agccttggtc aatttggttc ccaagactac 240

atcaagttct acttcatcat gtacgactac aactccaggg atttccatca aaagggg 297

<210> 4568  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-060-Q1-E1-H6

<400> 4568

ggttttgaat ttaactctat gcaggatcta aactccctct cctttgacag gactggctgg 60  
cgaaggccga gcagattatc tgtccggccc cattgccaga ggacccaccg gacgccctct 120  
taacggggct gctggctccg gcacccacag tgggtctgga aaataaggcc aagaagaagg 180  
ccacgggcac tcggaagagt tcccgttttc aggtgttatc ggatgatgac tccaaggctg 240  
actcctctca caaaggtgag gaggagaaga agaaagcctc tccccacagc gggggaggga 300  
agaaaaggaa gcctcccaa cgagggaggc cgaagggtcc aagaaggga aaactctttc 360  
cccggactgc tcctgcaacg ccaac 385

<210> 4569  
<211> 382  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-060-Q1-E1-H7

<400> 4569

acggtcaggt actccgggtc gaccgggttc gtaccgtgaa ttgccctttc tcacattgag 60  
agttgctgca aacttctccg gtgcatccaa accctgtgat atgatacgt atttcacaca 120  
taaacctcct tatatcttcc tcaaaacagc caccatacct acctattatg gcatttcata 180  
gccattccga gatataattgc catgcaactt ttcaccgttc tgttcatcat gacatacgtt 240  
acttttgtca tattgccatt gcatgatent gtagttgaca taatatttgt ggcaanagca 300  
caatgcatta tttttcatac atgtcactct tgattcattg caccatcccg gtgcaccgcc 360  
ggaggcattc atatagagtc at 382

<210> 4570



<211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-060-Q1-E1-H9  
  
 <400> 4570

```

ccgggccgac cggagtcgaa aaagagatcg aaggaggtgc aggcagagaa gctcaaggag   60
acggccaagg agaagaagga gagcattgag tcggtcaaga agtggaggaa gcagaggcaa  120
caggggggat tttccaaggg gaacgaggac gggccaaacc tcaactttga agttgaagga  180
ctcaagcaac acaagaagca taggcctggc gtttctcctg gtgacaggtc tgggtgtcct  240
gctaagcgag gcaaacaagg aaagaaccat aggtcaaagg attccaagtt tgggcatggc  300
ggccgcaaag ggatgaagaa gcaaaacact gctgagacga cgaatgactt cagaggggtt  360
aacaaccaga agggcgagtc aagaaacaag aagaggaaga tgttttgata cgggtgttg   418
  
```

<210> 4571  
 <211> 274  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-A1  
  
 <400> 4571

```

ttttatttgt tcgttatcgc tgtgttgtaa accgttggct gctcgagaat gatcctctgc   60
aagtgtttgt agcaacattc cttttctggt ttttgacttt gataagagtg taactttatc  120
tgtggtggtg tagaattcta aagctgaatc gctgtgcctt gtanaagctt gacattgcca  180
aatggcacca agaaaatttg gcataattat taggcgtgaa tgatgatggg gataaccatc  240
tgggaatgca naactttaga cttagggttc tgat                                274
  
```

<210> 4572  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-A3  
  
 <400> 4572

ggcgtcgacc tgagcctctc acatcctttc gttgcgccgc gcgctgtcca actttcttca 60  
 tctctctcct cgcgaagctc ccgtaccaac ccgacctctg gactcaaccc ccgcggaagc 120  
 aaaagttgtc aaagaatcaa ttcaaccacac tgcgaaaagc gaccgagaga gagaggaacc 180  
 ggaagcaaga agatggggca ggcgctgcgc aggctcttcg actccttctt ctccaccaag 240  
 gagatgaggg ttgtgatgct tggtttggat tcagctggca aaacaacaat cttgtatagg 300  
 ctgcacctgg gggaggttct tcaaactgtg cctacagtag gttttaatgt cgaaaagggt 360  
 cagtacanga atgtggcatt tactgtgtgg gatgttgggt ga 402

<210> 4573

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-A5

<400> 4573

agctcgtgat gtttctgcct caccatgtcc atgtattggg aacgggctcg ccgatggtca 60  
 cggtgcaatg caccagcgag gatggcgag aggagggggg tggcgccgga tcatcgacca 120  
 ccgcattctc cattgggacg tcggcgctct ctggatgcct gccggccagc cagtcggtag 180  
 caatggctgc catctccttt tgggccgtcg tccggccatc cggaagagtg ctggagcgcg 240  
 aggaaaccat cgtgggagtg gtgtggacag gagaaaggga acggaggcaa atgactacgg 300  
 ctacggcccg cgcagcagtt tatatagcaa tggggggcgg cagagggagc gacgggtagc 360  
 gccggagtag ctgccttggc aatcgtg 387

<210> 4574

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-A6

<400> 4574

cggaaggact acataagaat tgggtcaagt tggagcgtga ttgagctgta ctcgtctatg 60  
 gtgcgtgatt taccgccttc cagtgcgtct gaactcgacg gactagcagt aatgcaaact 120  
 gaaaaatgga gcgtgatatt acagctctat gattatatac ctctcagctc acgtctaacc 180

gagattatga caagtatgaa agggcatatt ctataataag ttcgacatag tcacagtagc 240  
atcaggatat tcttttagcga gaatactatg agagggcaca ttcgaatcga actaagacga 300  
gcgagagcaa cgagcacaat cttggaaccg tacatccaat acagctgggc agcgtgaaca 360  
atcgagtcgg at 372

<210> 4575  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-A7  
<400> 4575

ggggctccaa tgcttcaga cggcaccagt ggacctccaa ggatgcacct gccgggtgga 60  
ttgagctcga ggggctttgg aacgtggtgg aggggctgcg ggggtcaccg gcaagctcgg 120  
gtcggggacg gcgactagag gcctgcccga tcgggctgca gctaagctac ggggtcgtgg 180  
tggttgtgcg gtgaggtttg aggcttcgga gcagaggaag gggctctata tatagccgga 240  
ggatgagggg gtacgtggct ccgtcagagt tctctagaag tcggcgagcg acgacgaagg 300  
gtgccagcga gggggggaga gctcagcgat catgcggggag ctgttgagc tcgaggacga 360  
gcacaggaag caaagggggg agaagacacg ggcacgggag cactatggct tttggccgcg 420  
acgtaccggt gatcgctatg gcattctccg cat 453

<210> 4576  
<211> 133  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-B3  
<400> 4576

aaaatattat tgcgttgcgc gtgttggttaa atttgtatcg acgagcgtac aaataatgga 60  
acatatcaaa gattttttgt tttgggttaaa aaaaaaaca agaaaccaa aaaaacacaa 120  
caaaccacaa aaa 133

<210> 4577  
<211> 451  
<212> DNA

*(The following are the names of the authors of the papers presented at the meeting.)*

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

*(The following are the names of the authors of the papers presented at the conference, listed in alphabetical order by last name.)*

*(The following are the names of the authors of the papers presented at the conference, listed in alphabetical order by last name.)*

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

*(The following are the names of the authors of the papers in the volume, listed in alphabetical order.)*

gtgggtctttt attttctttc gctaacggag ctcatgaggt tttctacttt aagttttgtg 180  
tcatgaagtt ttcaagtttt gggtaaagat ttgatggatt atggaacaag gagtggcaag 240  
agcccaagct tggggatgcc catggcaccc ccaagataat ccaaggacac ctaaaagcca 300  
aagcttgggg gagccccgga aggcaccccc tctttcgtct acttctatcg gtaactttac 360  
ttggagctat atttttattc gccacatgat atgtcttttg cttggagtgt cttgtattat 420  
ttgagtcttt gcttgtagt ttaccacaat cataacttgc gtacacaact tttgag 476

<210> 4580  
<211> 145  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-C2  
<400> 4580

gtcgaccggt cgacgagctg cagtcaattc tactacatgg agccaagaca attgtggaca 60  
aaaagaagat caatgctgta tcaattcatt atgatgacaa ggccatcgac attctcccca 120  
atttaaacc ttcaatgggg aaaat 145

<210> 4581  
<211> 330  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-C3  
<400> 4581

acaatcactt cagccagtta gagagtcttc acatagttgc ataattattc gactactcat 60  
tgatcttcac ttatatcttt tggagtagtt tgggtgttgc ctagtgcttc gcttatatat 120  
ttttagagca cggtggtggt ttaattttat agaaagtaat gaactctcat gcttcactta 180  
tattatcttg agagccttta gaacaacatg gtagtttgct ttggttatga aactagtcct 240  
aatatgatgg gcatccaaga gggatataat aaaaaattc atatagagtg cattgaatac 300  
taagagaagt ttgatacttg ataattgttt 330

<210> 4582  
<211> 229  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-061-Q1-E1-C4

<400>       4582

ggtcgtgaat ttgaaagaaa cttgtgttaa agtttgtgat tcccgtagca tgcacgtatg   60  
gtgaaccgct atgcgatgaa gtcggagcat gatttatattt ttgattgtct tccttatgat   120  
tggcggtcgg ggacgaccga tggccttttc caaccaatct atccccctag gagcatgcgt   180  
gtagtacttc atttcgataa ctaatagatt ttggcaataa gtatgtgag               229

<210>       4583

<211>       483

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-061-Q1-E1-C6

<400>       4583

gtgacaatag taaccttact gaattgggtg cggagctaga tggctctacgg aaagagcatc   60  
acagtctaag atctgccttc gagtatgaga aaaacacaaa catcaagcaa gttgagcaga   120  
tgcggacgat ggaaatgaac ttgataacca tgactaaaga ggcggacaag ttacgagctg   180  
atattggcaaa tgctgcaaac agagcacatg cagcacaggt tacacctcca cagcctggga   240  
caggacaagc tgcagcgggt tcagcagcca caaatccata tgcaagtgca tataccagtc   300  
acccctccgc atatcagcaa ggaacttccc aagccgcggc ataccagcag ggaactgccc   360  
aagccgcggc ataccagcaa ggaactcccc aatccgcggc ataccagcaa ggaaccccc   420  
aatccgcggc ataccagcaa ggagcccccc aatccgcggc ataccagcaa ggagcccccc   480  
aat   483

<210>       4584

<211>       472

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-061-Q1-E1-C7

<400>       4584

gcacccaaat ggatagttct tcgcagccat cagaaggttc aaacggcagc agggttcaaa   60

gtcttcaggt gggcgctcta catggcaaag cactgtcctc cgccgagctt ttggctaaga 120  
 tgcgtggaac gcgagagggg gcagcttcag acgcactgga acatcagctc agcctgggct 180  
 ctgcttccaa ccagagacca ggctcgacag agaacggacg cacatctaac tcttcttcta 240  
 gtaggaacat tatcgtgcaa cctgaagtcc tgatccgcca gctgtgcacc ttcatacaac 300  
 aaaacgggtgg ctccgccagc tcgacgagct tgacggaaca tttcaagaac cgcatacaac 360  
 caaaggatat gctgggtgttc aagaaccttc tgaaggagat agcaatgttg caaaggggag 420  
 caagcggctc aacgtgggtg ctgaaacccg agtatgggta atttgcgga gt 472

<210> 4585  
 <211> 483  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-C8

<400> 4585  
 acggggcccc gaaaataggg ccgaccttcg gcgccatgat gatctccggc cagaaggcgg 60  
 cgcacctggc gctcaaggcc ctcgcccggc cgaacggcat cgacgggacg ctcaagaacg 120  
 tgaccccggc gctgcacccg gagatgatcc tggcggcgac caacaacggc gacatcgtgg 180  
 acgcctaaag caaagcaatg aaccacggac accaagaggc gtacgtacgc tgggtgtttgg 240  
 gggcgcaaaa tcaataagat gggtcggtga aacggaggat gcttagggac gagggcttgt 300  
 ctttgtgatt tgtcagactc gtgtttaatt ccgatgttta tctttagttt tcttgtgtta 360  
 gcgtattttg ttcatgccac ctgcccggca tgtgctctgc tctgctctgc ctacggcgag 420  
 ctccatggat gatgaatcct tctggaacaa gaggaggga taaaaagggt gagttcanaa 480  
 aaa 483

<210> 4586  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-D1  
 <400> 4586

tataataaaa acgaccatat tgagtgcgtt gaatactaag agaagtttga tacttgatga 60

ttgttttgag atatggagat agtaatatta aagttgtgct agttgagtaa ttgtgaaatt 120  
gagaaatact tgtgttgaag tttgcaagtc ccatagcatg cacgtatggt aaacgttggtg 180  
taacaaattht gaaacatgag gtgttctttg attgtaatcc ttatgagtgg cggtcgggga 240  
cgagcgatgg tcttttccta ccaatctttc cccctaggag catgcgcgta gtgcttcgtt 300  
tttgatgact tgtagatttt tgcaataagt atgtgagttc tttatgacta atgttgagtc 360  
catggattat acgcactctc aaccttcc 388

<210> 4587  
<211> 295  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-061-Q1-E1-D2

<400> 4587

ggaggatgaa cgagtgatat gtcaagtagt ggacagataa gcccaaccact ggatgtggtt 60  
ctgagggatt ttgcagtggg gttttagagg tgctatgctg ctgaactgct ctgtgtttgg 120  
gatttgaaat aaaacgaagg gagatgtgcc ccgcccttaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaataaa taaaaagatg ttaagaaggg 240  
aaaaaaaaaa aaaaaaaaaa agcggccccc caaaaggttc aagctttaat tacc 295

<210> 4588  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-D5

<400> 4588

acgcttccgt ggcactcggc gttcctgttc atagacttgt gagagccgct gattcagttt 60  
cggatatgct atcgaaaggt ttaggtgctc ctgttgatc agttattgtt ggttcgaagg 120  
acttcatata caaggctaag attcttagga agacactatg tggtggaatg aggcaggttg 180  
gaattctctg tgctgctgcc tatgttgagg ttcgcgacac ggtaggcaag cttgccgatg 240  
accatacgaa ggctaaagtt ttagcagatg gactgaagaa aatcaaacag ttacagtcg 300



atctaacttc agtggagacc aatatggtat tctttgatat tgcggatcca cacataacgc 360  
 ctgacaaact gtgtcaagtc ctggaacagc gcaatgtgct tgcaatgcca gcaagctcca 420  
 ag 422

<210> 4589  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-D7  
 <400> 4589

ggtattctaa aaagaatggt aggaagaaaa ttactgcagc aaagaaaagt gacaagagag 60  
 ctcaaataaa ggcaccacct gcaggaagag tcgtcgtgct cgatgagaat ggagtgccac 120  
 ttggacacag gaaatctagt ctgtgcaacc aggttgctggg acacaacaag ctgacatgtc 180  
 caacactctt ggaaagaaac aatgatgagg aggtcaagca acccaaactt caaaaatagc 240  
 agcccaaagt tatggaacaa aagaaggagc cacacccaaa gaaagcaagt agtagacttt 300  
 gtagcatatg caaggagtat gaaccacata atgcaagaac atgcccgagg cacgctgatg 360  
 ctgaaaagac aagcaaaaag atagagaaga aacataaagc aaaacctaga gccatcaaca 420  
 agaaagtggg ggaagatgaa g 441

<210> 4590  
 <211> 483  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-D8  
 <400> 4590

gggaatcaaa aaacagcgtg ggaggccgag aaaagagaga ccgccagaag aaatgtctcc 60  
 agaaactgga gatgcaatgc ctgctcctga aactcgagat gcagcgcttg atgaaaatga 120  
 agcagcaacg cctgctgaag ctggagatgc tgcttcaact ggattcaaga aaccgtgtgg 180  
 gaggccgaga aaggagagac caccagcatc aatccctact gaaactgaag atgcaacccc 240  
 tgctgagact ggtgatgcaa ggctgctga aactggagca gcaacgcctg ctgaagctgg 300  
 agcagcaacg ccgctgaag ctggaaatgc tgcacgaca gggatcaaga gaccgcttgg 360

aaggcctaga aaggtgaaga agcttgggag gccaagaaag gagaagccag aagaagcagc 420  
aatatctggt gaaactggag atgatgctgc agcagctata tttgctgaat ctggagcagc 480  
aac 483

<210> 4591  
<211> 253  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-E1  
<400> 4591

agtaccgcat caacaggaac ggtcttgcta caaaggtgga gaagtcacga aagcagatca 60  
aggaaaggaa aaacaggacc aagaagatcc gtggtgtgaa gaagaccaag gccggagatg 120  
cgaagaagaa gtaagggcct ttgcttggtt taggacggta tccctgtggc aatgttgctg 180  
agtgccttaat tataactaga aaagactttg tcatttatgt catctcctgg tatgctaaga 240  
ggcattttgt agt 253

<210> 4592  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-061-Q1-E1-E2  
<400> 4592

gtcgcacgggt cgccggtgca aaaaaacccg tgatacgata cgctctatca cacataagcc 60  
tcattacatc ttactcaaaa cagccaccat acctacctat catggcattt ccatagccat 120  
tccgagatat attgccatgc aacttccatc atcatcatat acatgacttg agcattcatt 180  
gtcatattgc tttgcatgat cataagatag ctagcatgat gttttcatgg cttgtccgtt 240  
tttttgatgt cattgctacg ctagatcatt ccacatcccg gtacacaacc ggaggcattc 300  
atatagagtc atatctttgt tctagatatt gagttgtaag taaataaaaag tgtgatgac 360  
atcattatta gagcattgcc ccagtgagga aaggatgatg gagactatga ttccccacaa 420  
gtcgggatga g 431

<210> 4593

<211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-E3

<400> 4593

gtcgaccggt cctaggctgg aactaaagtt ttaccgtcgt agtctccatg gcttgtgcag 60  
 acttgggttt catcggcaac ttttcacact gaccaccttt gttttaggc ttgttgaacg 120  
 tcgtttttgt tcgatgagcg acaagctgca taaaattttc tatatccatg gattttgaag 180  
 ctaactcttc aaacgtgagg ggcctcactc cttgtaactg gacagccact tccgancgga 240  
 gattgttcat gcacatgcgc actgcttccg gctcattgat tggctgtggg caatgaagac 300  
 ttaggtttct ccatctgttt atgaaatcag ccgccctctc gttgaaccct tgttcagttt 360  
 gggteaactc agttatgccc accgtcctct gtgtg 395

<210> 4594  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-E4

<400> 4594

gtgtcattat tgatttgctt gccatttgca aaccgtgcat ccgtttcttg tgttctttat 60  
 atcgatttcg accgaaatca totcatcttt ccagtggcat gcttgggttg ccaagttact 120  
 gccttgttca tcttttccct tccggaccac gcatacgcac cgcataatcat atctcgcata 180  
 tcatacatgt tttgcatcat gttgcttgtg catttctcgt gattgattgt ggttcgttgc 240  
 ttgtgttctt gtcttgggta gagccaggag acgagttcgt gaacgaggaa cctgttttagt 300  
 acgcttacga ggatcaagct ttcgacaact ctgagaacct tgcaggcaag ataaccaccc 360  
 ctcgaaatca cttctatctt tgctttgccca attgttccgc tcaattgccca tgttgcgcta 420  
 cctaacac 428

<210> 4595  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-E5

<400> 4595

ggggagcaaa caaaccccttc ccaagcaggc tcaacgcagt tcctccaaga atttctaag 60  
ggttaattcc aggggtttca tctgaggcat atcagaaaga caacaaaatg tggaagaagc 120  
atgtgaaggc ttatagcaat gtgaacaagt atctacttac tggtaggtag agaaacatca 180  
tgacatgaa tgcaggtttt gggggctttg ctgcggcgat cgagtcccca aaatcttggg 240  
tgatgaatgt ggtgcccaacc attgcaaaga ttgcaaccct gggggctgtt tatgagcgag 300  
gattgattgg catttaccat gactggtgtg aagctttctc tacttatcca aggacctatg 360  
atcttatcca cgctagtggc cttttcacct tgtatagcaa taagtgcagc atggaagaca 420  
tcctccttga gatggaccgc atcttgaggc ctgaagggtgc tgctataatg 470

<210> 4596

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-E6

<400> 4596

gggggtgtac acttagtgtc gaggaagagt gatatccatg ggaatcagtt gtactagtag 60  
caaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaacaaac gaaaaaataa aaaaaaaaaa 180  
aaaaaaaaaa ggggccgccc aaaaggttca aacttaactt acccttgaag gcaacttcaa 240  
acccttcaa aagtgcctcc aaatttcatt ccaggggcct tctttttaaa acttcttaac 300  
gggaaaaccc ttgggtttac caaattaaac ccccttgaac aaaatcccct tttcccaact 360  
gggcttaaaa ccaaagggc cccaacgttt cccctttcca aaaatttgcc caccctaaag 420  
ggcaattgga accccccttt taccggc 447

<210> 4597

<211> 462

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-061-Q1-E1-E7

<400> 4597

gtacgatgtg tcagatggca tgggcttcgg aatgctaacc gaggtgaga gatccttggt 60  
cgagcgctg aggcagagc tgaagcatga gcttaaacag gggtagagag aaaagcttgt 120  
ggacatcagg gaggagatac tgcggaagcg gagagccggg aagctcccag gagacacggc 180  
gtccactctg aaggcgtggg ggcaagccta cgccaaatgg ccgtacccaa ctgaggagga 240  
caaggcgctg ctggtgcagg agacggggct gcagctgaag cagataaaca actgggttcat 300  
caaccagcgc aagcggaact ggcacagcaa ccctacctcg tcctcgtcgg acaagagcaa 360  
gagaaaaagg aacaatgcag gtgacggcaa cgccgagcag tcctggtagc gcggggcgctg 420  
ctggagagcg aagaacgaat gcccataata tgtacatagc gc 462

<210> 4598

<211> 184

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-E8

<400> 4598

tgtatgtgc ttcggtatgc tggctcaggg tcatatgtcc ttggtctcgc gcttgaggct 60  
gtgctgcag cattctctta gacatgggtg gtttgacaag cttgtgccat gctggacgat 120  
accctgcggg tgcgcgcagc cgggtgggctc ccaggatctc cggcgtccac tctgtttgcc 180  
tttc 184

<210> 4599

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-061-Q1-E1-F1

<400> 4599

ggtcggtatc tagggtcgac cgggccaaca ttgaaatgaa gagcaggcac cagcgcaaga 60  
tcctggagcg cgcaaggaag atgtcagaga agattgggag gctggagggtg gaaatgcaga 120  
aggccaaca ngccctggtg aagtatgagg aggagcagac gacgtcgaaa accgtgggtcc 180

agcgggtccaa agtgcagctg gtggactatc tctacggctg aatgcgggaa agccggaagc 240  
 cgcggttctc gccctgccgt tgcataaaag cgaaaaccat tgatgactga ctctgccttc 300  
 gttcgcgccg ctccctttttt ttgaaggcgg aatgtgnaaa ggttgggggtt ttcagtttca 360  
 gatggagcga ctcatagtt catgtttttc tacgtanata cag 403

<210> 4600  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-F10  
 <400> 4600

ccgggcccga ggggaactca atggcgcca ccttcgttg caactcgacc tocatccagg 60  
 agatgttccg gaggggtgagc gagcagttca ctgccatgtt caggaggaag gctttcttgc 120  
 attggtacac tggatgaaggc atggacgaga tggagttcac cgaggcggag agcaacatga 180  
 acgacctcgt ctccgagtagc cagcagtagc aggatgccac tgctgacgag gagggcgagt 240  
 acgaggatga ggatcaggag cctgaggagg acatgtaagg tgggatgtcc atgtcgtgct 300  
 ttgctgggtg ggggttcttg gggcagagtt tgatctgttt ggtgctttgt tataaatctg 360  
 tttatcatcg caactaccgc ttgtacgcca ccgccattct tctgccttt cctaagctct 420  
 gtattt 426

<210> 4601  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-F4  
 <400> 4601

gacagagcta gcaaaagctc ttgccgagca gctatttgac aatgaaaata tgttggttcg 60  
 ctttgacatg tccgaatacg gtacgaaggg atctgtgttg cgcctcatcg gagcacctcc 120  
 aagctatttt ggttatgacg atggaggaca actgactgaa aaagtcaaga gtcacccgta 180  
 cagtgtcacc ctgtttgatg aggtggaaaa ggcgcacgag gaggtgtaaa atgttttctt 240

tcaacttctc gatgatgggt tgttgaccga tggcaaaggc cgaacagtag atttcanaaa 300  
 caccatcatc attatgacct caaatcttgg gtcaaagcac cttgcagcag gaatgggttg 360  
 gaagaacaca ntgcaagaaa cacacaagct tgtcatgaa 399

<210> 4602  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-F6  
 <400> 4602

acgggggtag cgagtggagg gctgggccgg ccagctacag tgctgggccg gtttggctac 60  
 caggtgagcg ccaggtaggc ttctgctccc ttttttttta tttctgtttt ctattttctg 120  
 tagtttgttt tgatttagtt tagcaactaa atcatttaaa taaattcagt agaattttat 180  
 gtggcttgct aaaatatata taaagccact caciaacttc cagaattatt ggagtcatat 240  
 ttaatatata ttaaatataa atccaaagca aatagttatt ggattaattc aaatggccaa 300  
 aataattatc tctgtgactc caaaaatatt ggtttgaatt ttacctctca ccaatatttc 360  
 catggaataa caggaacatt ttcttggaaca catt 394

<210> 4603  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-F7  
 <400> 4603

acgggagact ttaacctatc accgtcacia gtaagatttc gtcgtgcttt ttatgtaaac 60  
 cacctaagaa caaacctctg ggaacatcgt cgctattcac gattctgcct gaaaaaaaaag 120  
 taaatgaatt gattaaggaa aatatggaaa tgaattaaat aaaaaaagta agagatcaga 180  
 tgttgtaaaa ataaataaaa aaacaaatga aaagggggcg atcctaaggg ttcaaggttt 240  
 atttcagctt gaaggcaagg taatacccct tcaaaattgc cgctttaatt caattcaggg 300  
 gcgttgtttt taaagggact ggacgggaaa aaccttgggt tatccaatct aaatgccatt 360  
 gaagaaaatc cccatttcgc aattgggggt aatatgtaaa ag 402

<210> 4604  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-061-Q1-E1-F8  
  
 <400> 4604

```

gggggagatt ctaagacacg attgtgtttg tccactatta gcgtgacatg aaaattccta   60
ctaacgcagg atcgcatcgc attttctgga aggacttcga agtggagttc tggtttgcct  120
ttcctgatga tccttttagc cttatgtacc ttgagaccaa caactcttgg ccacgaaaac  180
ccatgatatt tgtacacatt tgaactatth gctctccata atgttcgtht tgcctcacct  240
ggaacctgca tagattgagt agaactttgg cattatgtta aaaattggag atcttaaagt  300
ttttctaagt ttgttaccaa cgttcgcatg atagagcata taaattaggt ccgtagctgt  360
aaatgtatct aaaattctag acaagcaaac acatcattht ttgttttttc tgatgttaaa  420
ccatggcatt ccttcttatg atggtgatat atgtaccttg ggcattgtatt ccgcaacc   478
  
```

<210> 4605  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-061-Q1-E1-G11  
  
 <400> 4605

```

attcccgggc cgaccaccac tggccatctg atctacaagc ttggaggtat tgacaagcgt   60
gtgatcgaga ggttcgagaa ggaagccgcc gagatgaaca agaggtcttt caagtacgcc  120
tgggtgcttg acaagctgaa ggccgagcgt gagaggggta tcaccattga tattgccctg  180
tggaagtctg agaccaccaa gtactactgc accgtcattg atgctcctgg tcaccgtgac  240
ttcatcaaga acatgattac tggtagctcc caggctgact gtgctgtgct catcattgac  300
tccaccactg gtggttttga ggctggatgc tccaaggatg gccagaccgc tgagcatgcc  360
ctccttgctt tcaactcttg agtgaagcag atgatctgct gctgtaacaa gatggacgcc  420
accactccca ag                                                    432
  
```

<210> 4606



<211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-G12

<400> 4606

gtccccggggc gacgggaaac acaaaaactgc ggtgggttata tgtaaaccag cctgaccggg 60  
 agctcgaaat gcttctgagt agaagaagca acctttccca cttccacaac gctcggttcgc 120  
 tatctatata cgggtgcggtg gacgacctac tattccctct tgataagttt atctatctgg 180  
 tgggtgttga ccttgaaggt tggcagtgc tcaaggacga agacatggtg ttgatatgca 240  
 gcagcaggat gctccttctc cgttatctga gcgtgaagaa tacaagagtc cgcaagctcc 300  
 cggccaagat caaggagctg cgagctctgg aaacggttga catgagccac acagaggtca 360  
 gtgagctccc atcagaagcg tgcgagttgt cacggttga gacgctggac ctaaggagca 420  
 cact 424

<210> 4607  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-G2

<400> 4607

ttcaatgata gatagatatt tgcaataagt atgtgagttc tttttgacta atgttgagtc 60  
 catgaattat acgcactctc acccttccac cattgctagc ctctcttgta ccgcgcagct 120  
 tctgtcggta cggcgggtacc atacaccac catatacctt ccttaaaaca gccaccatac 180  
 ctacctatta tggcatttcc atagccattc ctaaataat ttccatgcaa cttgccactg 240  
 ttccgtttat tatgacacgc ttcattcattg tcatattgct ttgcatgac atgtagttga 300  
 catcgtatatt gtggcaaagc cacctttcat aattctttca taaatgtcac tcttgattca 360  
 ttgcacatcc cggtagaccg ccggaggcat tgacatggag tcatattttg ttctaagtaa 420  
 tgagttgtaa ttttttga 438

<210> 4608  
 <211> 404  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB103-061-Q1-E1-G3

<400>      4608

ggtcggacct caggggtcgac cgtgcggtgg ttgcaatcaa agcaacaaat ggcattcgctg    60

cagaagccac agaggaggag ctcatgaacg caatgtccct cgctgaccgc accggcatgt    120

ttgcctgccc gcacaccggg gtcgctctcg cggcgctctt caagcttcgg gaaaaggga    180

caatcggggc aaacgaccgc acggtggctg tcagcacggc gcacggcctc aagttctccc    240

agtccaagat cgactaccat gatcagaaga ttgaggacat ggcttgcaat tacgccaacc    300

caccggtcag cgtgaaggcc gacttcggcg ccgtcatgga cgtcctcaag aagaggctca    360

agggtaagct ttgagcatgc cctcctgctg ctgctgctga accc                            404

<210>      4609

<211>      318

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB103-061-Q1-E1-G4

<400>      4609

agtcacagga acagatttct gtgatgaact actttccaat aaggagtag gtacagttac    60

ctcatcaggt tcaacttccc tccaattcac ttcttttaggg agaaaccct tccctaaaaa    120

ggatcaatcc taagcagcaa atatctggcc tttggatcgg tgataaaagg tgtaccaaac    180

agtccctttg ggtacccta taaagacaca tttctcctat ttgggttcga gcttatcagg    240

ttgaagcttt ttcacatagg catcgcaacc ccanacttta agaaacgaca actttggttt    300

cttgcaaaac catagttc    318

<210>      4610

<211>      482

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB103-061-Q1-E1-G8

<400>      4610

gatgttgatg ccaaggaaaa ggaggtggtg gctatgcat tagagaaaga gcaggatacg    60

aaagcaagaa ggttcggcag ttcaagcacc tctgcctcac agatgccacc tggaaggact 120  
 ctgcctcgga gcggttcagc acgcaacatg tgatgctgat atgaagcatt aaaaagacct 180  
 tggagcatcc cttgtgtagt tagttgaatc atggcatcca gggaccctct gctgacttgt 240  
 gtgtagagaa aacaagaaga cattacatct tggttgcctg cccagaagtg tggagcctga 300  
 gcctgaccct gatcgatcgt gcctactaca tctcgtggtc gcggaaatca atcaatcaat 360  
 cagcgactcg agtcgggtga agttagtgtc gttgatgaga tttggtggtg tttttattca 420  
 ttttctatcg tggaatcgaa acactttggt gtataggtat ggtgtggcct tgcaatattt 480  
 tt 482

<210> 4611  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-H12  
 <400> 4611

ggggaatctc acacaatacg atgttctgct gcgtcaagca gccgcctggc ggtcagaagg 60  
 gtgcctacta cgccatccat cacatgcggg cgatcgtagc ggaccatcat caacttctgc 120  
 taccgagtaa actcaaagat tgggcccgcga gcgtgtcggc agtccaggac gcggacatca 180  
 gacaagaatt ctttcgcata cagtcggagt ttgcggaaat catccatcaa gatgtccttc 240  
 gtacctcggg gcagttctgc ctcagaaatc aaccgtccaa cagtgcatac gacacaatgc 300  
 taaaaatgca gcctgacaac gcccgttatt tcatgactcc cacgatagac agcagcttca 360  
 tccacgctcc ggtcccttga gtcgagtcga aagcagtga cctg 404

<210> 4612  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-061-Q1-E1-H2  
 <400> 4612

tgaggagcgc gaagaaggag aaggagggag gaaagaagag ccaccatggt tctttttgtc 60  
 cgatgttaga ctatgggcta tctttttcca taagccgtct tgcttattca ttggggcttc 120

taaactagtt atgaaatagc taatttagaa gtccctcaaca aatcctaaag ggcaacttat 180  
 attttaagcc ggaaagaggc atcttatttt gtaagccact caaaagaact agccctacaa 240  
 ataagatata cacatttaca cacacacata tgctaaatgt cacttgctctg aagatgaatt 300  
 tggcactact tgattatgcg tatagcatcg acaacgcgac ccgatcatggg gtcccatcgg 360  
 agatgtgcct ggaacg 376

<210> 4613  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-061-Q1-E1-H4

<400> 4613

ggtatgtaag tggaaggagg atgagatcta tcatgtaatc gagttagttt tgttaggggt 60  
 tgatccctag tatgcactat attctgagat tgatgttgct atgactttgc tatgcttaat 120  
 gcttgtcaca agggcccgag tgccatgatt tcaattctga accaataagg tttccaggaa 180  
 aaaagggtgag tccttgatcc aaccttgagc ttcaaataac accaacaatg tgtaagaatc 240  
 cggaaccccc aaattgacaa taatcggaac aattcccggg gatgacaata gtttgaggag 300  
 ttcattgtatt cactaggtgt taatgctttg gtccgggtact ctattaaaag gaggcncata 360  
 tatcccttag tttccgttan ggacccgctg ccacgggagg gtaggacaaa gatgtcatcc 420  
 aagttttcttt tcataggcac gtatgactat attcgaaata catgcctaca ttacattga 479

<210> 4614  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-061-Q1-E1-H8

<400> 4614

gtattgtttt cttttactaa cggagcttat aagatttcct gttgagtttt gtgttggtgaa 60  
 gttttcaagt tttgagtaaa gtttttatgg actatggaat aaggagtcgc aagagcctag 120  
 gcttggggat gcccaaggaa cccaagata ttcaaggata gccaaaagcc taagcttggg 180

gatgccccgg gaaggcatcc cctctttcgt ctttgttcat tggtaacttt acttggagct 240  
atatttttat ttgccacatc atatgtgttt tgcttggagc gtcgtgtact atattagtat 300  
ttgattttta gtttaccaca atcacccttg ttgtacacac cttttgggag aagcctatTT 360  
tattaggatt tgctagaata ctctatgtgc ttcacttata tcttttgagc ttgatagttt 420  
ttgctctagt gcttca 436

<210> 4615  
<211> 318  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-A1  
<400> 4615

attggaaaat aaattcaaag ggctttgaat ttaattcttt gaaactccca actcatatTT 60  
catataatTT gaagaagtca ttttatcttc tctcgtgaaa atcattgagt cgcataaagt 120  
ttcagaattg gaatatttcc aaatgaaatt caattattct cagaaccctt tgtcatttaa 180  
ataaatggaa gaagtcaggt catcttctct cgggggtttt gtgttgaaaa gaatttgaat 240  
tcacggggat cagaaagcca ttatgaaagt ttgggaaagt cgtttttatt cctctcattt 300  
acctttcaaa aggttttg 318

<210> 4616  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-A10  
<400> 4616

acgggtccata tccggtcgac gggggagaaa gaaagttggg aatgatgcag tcgatcagct 60  
caacaagttc aatcagaaat tggcagatct ttccactgtt cccacagcga gactgatcga 120  
tggtatcctg ctcaccaagt ttgacgctat cgacgacaag gtcggagccg cgctgtccat 180  
ggtttacata tccggatctc cggtcattgt cgtcgggtgc ggccagtcct aactgacct 240  
gaagaagctg aacgtgaaat ccatcgtgaa gaccctcctg aagtaaaatg gtagtgctag 300  
tacatgtcgt gctccgatat gtgcgcgatt caaggagtct ctgttatatc tccgaaaatc 360

ccccgtgaca tcgtcgtttt ctggtttggt ttggcgtgaa actgtcggtcc ctagcaaact 420  
 ttt 423

<210> 4617  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-A11  
 <400> 4617

gacggggata ttgaagctgg tgaatacgag gaaatcagtt ttcagcttaa ttagttttac 60  
 tccttttgc tcttcttttt tgagggatta ctccctttta tttttgtttc agaggcctga 120  
 tatatccatg ttccatgtat actcccccta tatataaagt cattttcact ctgtgggata 180  
 ctagatgttg cagtaattag ataagtgaag taaagtaaaa cctcatgtgc acttcatctt 240  
 agtctaataca atgtgggtcaa tctcaagatc atggtggaac atggtgcaat gaaagtatgc 300  
 gccatgaatg gacagaaacg gtacagcaac tagggttctc ggaacatgca aagcagccga 360  
 aaacggaaag ccagccggcc tggagctggg ggttgcacgc attccaaatc tcc 413

<210> 4618  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-A12  
 <400> 4618

tcattcaacc ttgcaggtat gccgagtga tttctaacat tgtcccagta tagaataaag 60  
 gatctggcaa gttgaggggtg tgcattgatt tcagagatgt gaatagggct acacccaaag 120  
 atgagtatcc tatgccaata gccgatatgc ttattaatga tgcttctgga cataagggtta 180  
 ttagctttct agatggtaat gccggataca ctcaaatttt tatggccgaa caggacatgt 240  
 acaagacagc tttttgatgc cctgatttcc ttggtttatt cgagtggaca atgatgacat 300  
 tcagattaaa aaatgctggc gccacatc acagcgctat gaatttgatt tttcatgatt 360  
 tactcgggtg cataactgaa gtctatattg atgatactga tgtcaaactg ga 412

<210> 4619

<211> 438  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-A2  
  
 <400> 4619

gtcgaccggc caagaaaagg gagaaacttt tcgaaaatca ttttacaagt gggggagggg 60  
 aaaacgagag gcaaatggcg aagaatgtaa tgcaaggga gagagtttat gatgggtact 120  
 tgggtgtgttt gacttggcgt agatctcccc ggcaacggcg ccagaaattc ttcctactac 180  
 ttcttgagct tgcgttggtt tttcccttga agaggaaagg gtgatgcatc acagtagaga 240  
 taggtatttc cctcgattag agaaccaagg tatcaatcca gtaggagaag aacgcacaaa 300  
 taacctata cctgcgcaa caattaaaca cctgcgccc aacgcaataa aaggggtgtc 360  
 aatcccttca cggtcacttg caaagatgag atctgataga gatagataaa ttaaaccaca 420  
 acaaagatca attttttt 438

<210> 4620  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-A4  
  
 <400> 4620

ggtcgaccgg gcgccgggga agacgcaaca gtggaagccc gcgcggagag gagtacgagg 60  
 gttcactggt tcggctgcgg tgtgaggctg tcgtcgctgc agggcctggc cagcgatggg 120  
 aatagtaggg gcggtgaggc ctccgcggca gcacagccgg ccacgggagg caggagcatg 180  
 tggcacgacc ggcgtgctt tgggcacctg gagcgagaag accagaggtt gaagaagcac 240  
 tacggctggt ggatagacat cgtacggtca ttggagctag aatcatgcat attgactaat 300  
 ttgacaaagc cctccgtccc gtcaacttat taggccaca attcatcctg ccactatact 360  
 ggggtcccagc taacaggggg agtattcatt tttttgtgcg taataacgag gcacttcctt 420  
 gcgtgcgaag atatagctgg tgggt 445

<210> 4621  
 <211> 470  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-062-Q1-E1-A5

<400>       4621

tgcccccccc ccattcttctt cctccccgca actcgctgct cctcccagaa ccgaagctca   60  
gtcccggtggc cacgcagaac aaaatgcagc gagcaattca agctatcgga tcacatggca   120  
gtgtgctcaa atctgctgtc ctgcaacaca tcagtgttgt gaagcctgct atgctgcctg   180  
ctgtgttccc gcgcttcatg tcagtatcac ctgctcaaat agaggagagt ggatttgaga   240  
gcagcactgt tgcggacatt ttgaagtcca aagggaagag tgctgatgga tcatggctct   300  
ggtgcaccac tgatgacagt gtctatgatg ctgtcaaate gatgacacag cacaatgtgg   360  
gagcttttgt ggttggttaa cccggggaag ataaatcaat tgctggcatc gtcacagaga   420  
gagattatct ccggaaaatc atagtgcagg gtcgactctc caagtcaacc           470

<210>       4622

<211>       462

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-062-Q1-E1-A7

<400>       4622

ggggagaaca ttgcattgag atccaaaaag agaaaagaag ctatctagct actagctatg   60  
gacccgaagg tctgaagtaa actactcaca cttcattgga ggggctatgg tgatgatgta   120  
gaagccctcc atggtggatg cccctccgg tggacctcg gaacaggccc caagatggga   180  
tctcgtggat acagaaagt ttgcagcgttg aattagggtt ttggctcctg ttctgatcgt   240  
tcggggatac gtaggtatat ataggaggaa ggagtacgtc ggtggagctc tgagggcccc   300  
acgaggtagg gggacgcgcc ctccaccctc gtgaccgctc ctggcgcttc ttggagtagg   360  
gtccaagtct cctgggtcac gttcggttgg aaaatcacga tcccgaagg ttcatccgt   420  
ttggactccg tttgatattc tgtttcttcg aaatactaaa aa               462

<210>       4623

<211>       475

<212>       DNA

<213>       Triticum aestivum



<223> Clone ID: LIB103-062-Q1-E1-A8

<400> 4623

gggccgacgg ggaggtggag aaatcgcagg cggagggggt gcacacgtcg acgcagatgg 60  
gcagcgggca cttcccggag gaggggttcg gcaaggcgag ctacttcaag aacatccagg 120  
tggtggacag caccaacaac ctcaaggcgc cccatgggat gggcaccttc acggagcagt 180  
ccaactgcta cgacgtgcag aacggcaaca acgccgactg gggctcctac ttctactacg 240  
gcggccccgg cgggagcgcc aactaccagt gatgacaaga acaccacat gactgacgag 300  
tgagtgaagt gtagtgtggt gcaccatctg cattgttagg cctagatgat gataggtgtc 360  
atgtgaatgg gtctgtgtgt tgtctcctga ttttttctt ttttgatttt ctcccggtgtg 420  
tcaatcaagc cttctgaaga gaagcatggc atgtggtgtg gtctgtggtg gtgca 475

<210> 4624

<211> 417

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-062-Q1-E1-A9

<400> 4624

gactaacaca tataaatggc catttgtatt ccaggtaaca gtcttgaaaa gaaagaggac 60  
gatggacctg agggggaacg gaggcangag agcattcttg atggctatgc tgaggcggct 120  
gtttatttga tccatggtgt angaagcgcc ggtcaacacg gtggagctgc gccgtgggag 180  
ggtgctggtt tggagatccg cgtgactatc cgagcgctag tccacctcag aatggaagca 240  
agtgggtgcct tgcgggtgcc tcgccatgcc atggcagtgc cctgtacgaa accaatgcac 300  
attacgtttt tcatgaccat gaaaagataa acgtgaaggt cgggcatacg ctataacttg 360  
atgatgcata taaaatatga tgtctaagaa agattcggtg cacatgtttc tgaatgt 417

<210> 4625

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-B12

<400> 4625

ccggtcgacg tgtttgtgta agaaacgtcc ggacatcccc agtgttccca ggaaagtaat 60  
cgagcaccat cttgcagtct gtctcatgc gcggcccgtc aagcagaaag tcaggaaaca 120  
ggcattggac cgccaaaagt tcatcgaga agaatcaag aaattggaag cagcaggcct 180  
tgtcagagga gtgtccatc ctacgtggtt ggccaaccct gtagtcgtgc gcaaggcaaa 240  
cgggaaatgg aggctttgta tcgactttac cgatgtcaat aaagcttgtc ccaaagacct 300  
acttcccttg ccgcgcattg accagattgt tgactccacg gccggatgtg acttgctttc 360  
atttcttgat gcatactcag gataccatta gatcttcacg gcagaagagg atgaggagaa 420  
gacgcattca atcacccatg tgtc 444

<210> 4626  
<211> 334  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-B3  
<400> 4626

cattgtttac cgaggatcgg ggtgatatag attgttaggt ccgcagtttg ccactttgta 60  
atgttctctc ctacatagcg ttgtcatgcc atgtgtgcct tgctctcagc agggaaattg 120  
agttgttgta tgttgtgtag cataacgatg ctttctgcct gtggaattaa accataaaga 180  
ttgccaaaaa aaaaaaatga caaaaaaaaaa aatcaatggg cacataaaca tgggtgtcac 240  
gtgttgaaat atgttctgtg acgcggaaaa gctaagtgtg ctgtcacgaa aaaattgggc 300  
ccaccaagag gttcaagcct aacttggact ggaa 334

<210> 4627  
<211> 118  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-B4  
<400> 4627

ctacaaaacg ttgtcaagcc atgtgttctt tgctctcagc aaggaaattg agttggtgga 60  
cgttgtgtag caaaacgatg ctttctgcct ggggcagtta aacaataaga ttgccaac 118

<210> 4628  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-B5  
  
 <400> 4628

ttgcaggaac cgctcgtcgga ttttgctacg actgatgaga tttttgctac atccatcatg 60  
 atggagcttc gaccgatgac gatggtgatg gagtttttgc tgcaaccgcc gtcaagtttt 120  
 gctacgactg ggcgagaaat ttgttacatc cattcttttt ttacggcaaa gaccggtggc 180  
 cgctcgttcat ggcgaaaccc gtgcgacgag cgtcaatggc gagggatggt aggcggtgca 240  
 ctgggaccat agcgcgtcca ccgcgggggt tggaacagat cggcgggggt ggattgaaac 300  
 cagcgatgtc ggagctgcaa ccgaaattaa tggtgaccgg ggaagaggtc tttggcaaac 360  
 atcggggaag agcagcgcag caaggcggcg agatgcgagc agccggcggt cgttcgcctc 420  
 gccggagccg cggacatgga cggaatcatg cggataagga ggaagggcc tctttt 476

<210> 4629  
 <211> 501  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-B6  
  
 <400> 4629

ccgggtcgac cggaagattt aaagtatttg ggtaaagatt tgatggatta tggaataagg 60  
 agtgccaaga gcctaagatt ggggatgtcc aaggaaaccc aaggtaaaat tcaaggacaa 120  
 ccaaaagcct aagctcgggg atgccccgga aggcattccc tctttcgtct tcgtccatcg 180  
 gtaactttac ttgaggctat atttttattc accacatgat atgtgttttg cttggagcgt 240  
 cttgtatgat atgagtcttt aatttttagt ttaccacaat catccttgct gtacacacct 300  
 tttgggacag actcacatga atcggaattt attagaatac tctatgtgct tcacttatat 360  
 cttttgagct agacaatttt gctctagtgc ttcatttata tctttttaga gcacggcggt 420  
 ggttttattt tgtacaaatt attgatctct tatgcttcac ttatattatt ttgagagttt 480  
 tttagaacag catggtattt g 501

<210> 4630  
 <211> 485  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-B8

<400> 4630

ccgggtcgac gtacatcatt tccctagaca tcaatccgat cacaatcgcc cgaaacttct 60  
 tggcaggtat gtactgggtc ggcatgaact cccattggat ggctgccttc agagaagacg 120  
 gtaaaaagtt ggtgctcatg aacttccaga cctcccatga gattatcctt cctccgttgg 180  
 attatataga gtattaccat cgcggtccaa gtcactctaga ttactacgtc agttggacgg 240  
 accttgtttt gcagaagatt gtaatctgcc aagtaaccac acgatatgcg aattacatag 300  
 acttcaagct aattgccttg ttcaaccgcg gactcgccta tctttatacc ggtgcctttt 360  
 ttagccggag acaactcggc tcacaatgga tcatcgtcaa ggccgataca cacttctgtg 420  
 atgctattga acacaatggc atcatctacg cgatcgacaa agcagatggc accatgtatt 480  
 gctgg 485

<210> 4631  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-B9

<400> 4631

cggaacggct acatgcaagt ctgatcaatc gatgatcgtc ggaagcaagt gcagtgcagt 60  
 gcagtcagcc agaggaagac gaaggcgttt cgatcagtcg gatcccctgt tcttttcac 120  
 cagacaagtc gggagggggt ttcttgctcag ctagtcgggtt tctggcttgt cagtagctgc 180  
 ggtgcgtgtc gtgtggatcg agttagttgt actaccagaa attcggaatg acatggaacc 240  
 catgcgtatc atagcagatg gtacgggctg cctgcccttt tcctgggtgt tcggttggtg 300  
 ttggttcatg gtggagtgc agtgtgacaa tgtatgcctg gcgatgccac tacagggcgt 360  
 gtatctgtag gcatattccg agctggcttt atccctgtgg atctgttttg tccgcttatt 420  
 ttgacactgc 430

<210> 4632  
<211> 458  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-C1

<400> 4632

tagtgcaaca tctcagcaat gctaataataa ttggatcata caaccacccc tcaaagtgcg 60  
atgaagaatc actccaaagt tactatctag cggagaacat aagaataaat tgtttgtagg 120  
gtacgaaacc acctcacaac tattctttct gttcgatcta ttcaagagtt catattaaaa 180  
taacacaaaag ctattttttc cgttcgatct atcctagagt tcgtactaag ataccacgaa 240  
agaaaattca tattcataat actcaatcca acacaaagaa ctttaagag ttccccaaga 300  
tttctaccgg ataaacaaag acaagaacgt gcatcaaccc ctatgcatag attaccccaa 360  
tgtcacctcg ggaatccacg agttgagtgt caaacatat atcaagtga tccatacgat 420  
gccccattgt caacacgagt attcaattgc aagacatg 458

<210> 4633  
<211> 429  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-062-Q1-E1-C12

<400> 4633

ccgggtcgac gggctcaatc aagttatgac gaccgactca cagccccctca aattaagacc 60  
tacagttccc atccagaggt ggagtcgtgg acttcccccg acctcagcgc aggaggtctc 120  
ggccagtctg tcaagccttc ccgtcttcga tcgtacgtca tgcgtttga ttcagacacg 180  
ttacaaactt acgcgacaat ccggtcgaag gtggcgtttg gcatcatcga gaagcacacg 240  
gaggcgctat tcgggaagcc ggagatcgtg atcaccgccg aaggaacggt cgattcttcc 300  
aaggatgagt atgtcaggat aagcttctcc gggttgagaa ggctcatctt anaggctgtc 360  
accttcggat ccttctctcg ggacgtcgag agctatgtgg actccaggta caatttttgt 420  
cacaactaa 429

<210> 4634

<211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-C2  
 <400> 4634

ggtcgacggc gttcttttga taaagttgag tccatggatt atacgcactt ttacctttcc 60  
 atcattgcta gcctcttcgg ttccgtccat tgcactttct caccttgaga gttgggtgcaa 120  
 acttcaccgg tacatccaaa ccccgatgata tgatatgctc tatcacacat aaacctcctt 180  
 atatttttct caaaacagcc accataccta cctattatgg catttccata gccattccga 240  
 gatatatgac catgcaactt tccaccgttc catttatcat catgacacgc attactttta 300  
 tcatattgcc attgcatgat catgcagttg acgtcgtatt tgtggcaagg ccactttgca 360  
 taatttttca tacatgtcac tcttgattca ttgcccattc cggtacatcg tcggaggcat 420  
 tcatatagag tcatat 436

<210> 4635  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-C3  
 <400> 4635

tcgaccgggg cggtcgcagc agaggaaagg aagcttttcta ccctagcaga gaaaaaaaaa 60  
 gcagaggaga ggaagcggag gcgacgatgt cggcgatgac tgcggcggtg cccttctggc 120  
 gcgcggcggg gatgacctac atcggctact ccaacgtctg cgcggcggtg gtgcggagct 180  
 gcctcaagga gcccttcagg accgaggtct cctccgcga gaaggtccac ttctccctct 240  
 ccaagtggac cgacgagaag cagcagaagc cactgtgac cacagatgat gaatgaagat 300  
 caggtgccat ggtgatgttt tgagaaattg ttggtttatg gt 342

<210> 4636  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-C4

<400> 4636  
 ggtcgaccgg tcggagcgtc ttatataata tgattctttg ctttttagtt tgccacaatc 60  
 atccttggtg tacacacctt ttgagagggg cacacattaa tcatgaattt attagaatac 120  
 tctatgtgct tcacttatat cttttgagct aggtagttgc tctagtgtt cacttatatc 180  
 ttttttagagc acggcgggtgc ttttattttg aataaattga tgaaccctca tgcttcacta 240  
 atattatttt gatagtctcg aaaatagtat ggcaattttc ttagcttatg aatttagtcc 300  
 taatatgatg ggtatttaag aggggtataa taaaaacttt catgaagatc attgaatata 360  
 tgag 364

<210> 4637  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-C6

<400> 4637  
 ccggggccgac gggcggggtc atgataactga ggaatatata ggataataag gtgggtgtatt 60  
 accaccatgc ccgttgagct gatgtttgtt tcagctagag aaatcggtac gcccgctcat 120  
 aattcctttt tcgacgtctt ggagaataat aactactggt atatcattct atatcaaagc 180  
 .cggcttgtga aataaatgat ccgccgtctt gccttcaaaa taaaaaaaaa aaacataaaa 240  
 aatagaatct ggaccagtag cttgaagcat ccattttctg gaatacgaat taattccgct 300  
 tcatgggggt ctactgatt catgtcacat ggagttcgta tataatggtg gatgttgagt 360  
 taacgttcta ttagtgcata ctaatgcct tgcaggagat accccttttg caaaag 416

<210> 4638  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-C8

<400> 4638  
 ccgggtogac ctggctgttc ttgaaattgt agtatatagg tttacctatg cctcatgagt 60  
 gatgttcaaa tcatgtcaaa taaaaatgat gggtcagatg ataataacta ttattgttgt 120

tgttgtaata aacttgccat tttgtaacag aagcatattg ttatgtacag gttgccttgg 180  
 tggtagagagc cgcaaaggaa gtttgagatg tacagggtgaa gttgatgatt aagagggcct 240  
 gtgcaatggt gtatacttgt tgatgtaatc tgggttagtt gttattgagg tcagggtgaat 300  
 tgatgttgga tgtgttcttt gacacatttt aaaaggcctt tactcaatga aacaattgaa 360  
 tagaaatttg tgaaatggaa tagaatatgg tctattcaat ggaaactgtg aaagcatggt 420  
 tgattatctg taatgggtcg tgccacaact gtttggatga atat 464

<210> 4639  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-D1

<400> 4639

ggtcgacggg cgatgagcct caagcgatcg caggaggaca cggggaggca tgtcaggatg 60  
 ctcatccatg agatcagtag cacgcttgac aggcacatca tctcaagac tactctgggt 120  
 gagctcgga ggacgctggg tctggaggaa tgtgctttct ggatgccgtc aaggaccggt 180  
 tcgagccttg agctaattca taccatgcgc cacaacatcc ccacgggctc ttctgtggag 240  
 attaatctcc ctgttgtaaa ccaagtctta agtaccaacc gtgcgatcat agtgccacat 300  
 acttctcctt tggcgaggat ccacctgtt caagggcggc atgtctcacc cgaggtgggt 360  
 gctgtgagat tctctgctg catctttcaa actttcatcc cgaagctt 408

<210> 4640  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-D12

<400> 4640

cggtcgacgc caagaaagac ttatgtcaaa tatatcatca gtatcaatca ctatatgaca 60  
 ccacacaaca gatatgctgc tgtcagcagt gctctctaaa tagacactgc aattatctta 120  
 tacatcatta ctgttgctag caatgctctc taaatagaca ctgcaattat catgtacatc 180  
 attgctgctg caataaacca ctaagaatta ttcaatatct agcctagcgc cttcgttatc 240



atcaaccgag ggttgaggcg gagttacaaa atctgaatga gaaaccaagg gattgtccaa 300  
 gtcagcgaca tctttgttat cttcagagct gttagaagca gctgagatgg cgtcaccgca 360  
 ttctgaatgt gttctgtcca catatgcttc gggtaaggag ctctcggcca catcagcat 419

<210> 4641  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-D2  
 <400> 4641

ggtcgaccgg tcacctttga aagacaccgt tggactttt cttataaagt cctccctcat 60  
 ggaccttgta ggccttcgat cgccagacta tgcagcgggc ctcatTTtgg tcttcgggaa 120  
 gttcctgcct aagtaagtag gctaggaaag gttctgtcaa cgcggcgatt actgcaatta 180  
 tgacgtgggc ggaggatggt atgtcgtctg ccgaatcacc ggttggtgog gttttctccg 240  
 gtttgctgct accgggctcc tcttcccata gtacggatgg cttgaagagc cgttccagga 300  
 agatatttgg agggacagca tcacgtttcg caccgatgog tgccaggacg teggcgctt 360  
 ggttattatc tcgggctatg tgatggaatt cgagtccttc aaaccgagct gaca 414

<210> 4642  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-D3  
 <400> 4642

ttgacatgac atacgggact gactcctgtc tgcaaagtgt cagtgggtgg acatatggta 60  
 aatgtgaagt tatgaaagac accactgttg gcataaaatc ctatgcagggt attgctgcgg 120  
 agggatcgg aaacggagcg ctcttgatgg caatgaatta ccatgtcaat acatcaaata 180  
 ccgctttgtg ggattacatg ccaatggttt tcaacatctg accttctccg aaatttttgc 240  
 accgtacttc cgccatgtta cgccgcgttt catcttttgc ttgttatgat agtatttcaa 300  
 cacttttttg tgggaaaagc tgataatggt tagatgttgg gtatacagaa gcatagaagg 360  
 aaactaacia cgacattttc ggcagcacgg tcatttcttg caaattgccc tgccgtttgg 420

tgcaactgtgt tatta

435

<210> 4643

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-D4

<400> 4643

acttggttagt gaaccatttg ctgtttgggg ccttgcttct ctgggacctt ttccttcgtc 60

tactgggtat acacatattc tagttgttgt tgattatggt actaagtggg tacaagctat 120

tccaactagt actgttggtc ataacacttc tattaagatg cttaaagaag ttatttttcc 180

gatgtttgga gtccctagat atttaatgac tgatgggtgg tccacatttta ttcattggtgc 240

ttttcgtaaa atgcttgcta agtatgatgt taaccatata attgcatctc catatcatcc 300

tcaatctagt cgtcaagtaa aattgtttat tatagagatt aaattgatat tgcaccagac 360

tgtaataaga tctatacaga attgggtccac gaaacttgat gatgcactat gggcatttat 420

aactgcttat taaaatccta tgtgtatgtc tccgtgtaaa ctggttt 467

<210> 4644

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-D6

<400> 4644

gtttatcctt tgcgctatgg cttcacattt atctttttaga gcacggtggg ggttctatct 60

ttattgatgt ttctaatttc tcatacttca catcttccaa tttgctcgtc tttggactca 120

tcgggtatat ttactttgca tgcacggtt taaagcatgt cgcattcattg cgtcacttct 180

tcttgtgttg caatagcctg gtcgacctct atcaggtgtg cacattgagt actttcccct 240

atttcccttc gattgtcttc agcttgggtt ctagattatc attggcggtc gatcacctct 300

gtgtcggacc ttcgattctt ggggtgttgc acctgtgctt tgattacagt tgttcgccat 360

tggtttt 367

<210> 4645

<211> 369  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-D7

<400> 4645

aagatcggcc atgcccccaa gttgcactct ttgggatatt tggattcaga aaatcatgtc 60  
 caagagtctg gcaacactgt catcaatgtt gggacaaagg tgagcccacg caccatggcg 120  
 ccaagtgtga c gatcctggc tttggatgtg cgttggtgaa tccgcagtta tgccaagatg 180  
 atccctactg tcatcagatg ctttccaaac gttgagacgc tccacatcat gtctggagaa 240  
 actggtcaac cctctggcaa gcacaacctt gatttccgga atgagtctgg taccatagca 300  
 tgcactctgt cgtgcatcat tctgctgggt ttccatgatt tccgaaggga tcgacatgag 360  
 ctgctttc 369

<210> 4646  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-E1

<400> 4646

gtcgacgggc ggctgctcta tagtgacata tacagatatg ctcatgtagt tatgtgtgct 60  
 gcagatttat tggatctgtg gactgtggcc aaccatcttg attctaactg aacattttcg 120  
 agctactggg tgctgggtgt atttttcttg cagctggcca tgctcggctg cgggtgggtg 180  
 ctggtatacc ggtgctcggg gaatggcatt gttgcgggtg ggttcttttg ttcttgctgt 240  
 cgttgcgctc tgtgttaatg cgggatcaa taatagcaat agtgggtactg gcagcgaagt 300  
 gaaccactga tggtttgtgg taggcctgaa tggatgggta taatagtatg gtagtagtat 360  
 aatggcagta tatgcagatt caactactta tatttttc 398

<210> 4647  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-062-Q1-E1-E2

<400> 4647

gtcgaccggg acggatatca aaaccatggc actatgtata acaaacaacg tacgggtaag 60  
ataattatac gagtaactat atatccaaat cacacaaaca tcaatttggg aatgtaaaac 120  
attcatgaac aagagggtca ccacaagggt gtgccggcga tggaacgggt tgggcgattg 180  
actatgggta cgacggagat ttagaaggca ctaagtaaac cacacctaca tatgcaaact 240  
aagtgttatt tttgacctca aattgcgtac aaatcaaata ctagcacata tatttcctcc 300  
caaattacta aactcataaa ttaatcacta tacanagcat tgcaagagct aatctagcaa 360  
tgagagatga aaggacaaag ttgctaacct ttgtgatcaa ttgaatggat gggggcctca 420  
natcttgaca aatttt 436

<210> 4648

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-E3

<400> 4648

ggtcgaccgg acaaattctg caatgcatgt gaggatgacc gagtgtaga atgcgagatt 60  
cactaaagca tatacagggt aatgatttgg gtgcgggatg gattgatcac cataccaact 120  
tactcttatt attcgcttgg ctatatggga tggtaaactt gagtgactta cctatagtag 180  
acaaatgacg atcaaaacct tgtttaagcc ttagaatggg ataggtattt tttcttcctt 240  
gtacaaggaa gtttttgcca accgtaggtt atacggtgag gatcaacca gaccatttcc 300  
ctgcaggaga aaccataaat ggttgaccac catgagatat caatagtgtt ttagtattgg 360  
gccaaaaccc atcagctaag aggacccatt ctcaaaaaaa ccttacctag atgaaggaca 420  
gacgaattgt ggtaaagggt atgccactac cggaaaaccc cggataagga a 471

<210> 4649

<211> 321

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-E4

<400> 4649

cgagattcac tgttgcacat ccagggtaat gatttgggtg cgggagggct gggtcacaat 60  
gcaacttaat cctaatacat cccctgccaa tagggaaggg taatcctggt taccttgcct 120  
gggttgacca atggcgattc agaccttggg taagccttaa aatgggccaa gtaatttttc 180  
ctccttgtag caggaagttt ttgccaaatc gtccgttaaa cgggtaggat taaccagac 240  
ccatttcttg catggtaaac cataaatggt tcgacacatc gggctatctt tttttgttta 300  
gtactggggc cagacccatc a 321

<210> 4650  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-E5  
<400> 4650

ccgggtcgac tccttctatg gatgaacgta ttgctggcct agtccagtca tcgctacaaa 60  
cggctgctac agcagtatgt tactttccta tgatatcatg atggcttgct tatattaatg 120  
tcaacattta ctggaaaaat attcatgctc ataacatgct gttcttaaga ttgactacat 180  
taagagccct tttttatttg actccaactt gatatgatgt tgtaggccgc ctggtgtccc 240  
tacccttact aatcccagaa actttcaaag aaaagcggcc tggcagttgc aggtggttcc 300  
tggctcgatg agacgatggc gaatgattga tgatcgttcg cacgtaccgg acgtgttggt 360  
tcgcggaata caatcacaat cactgcaagg tctttgagca agattccagc ttctctgggc 420  
cttcaagaat ttttgac 437

<210> 4651  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-E6  
<400> 4651

cttctatgac tgaacgtatt gctggcctag tccagtcacg gctacaaacg gctgctacag 60  
cagtatgtta ctttcctatg atatcatgat ggcttgctta tattaatgtc aacatttact 120  
ggaaaaatat tcatgctcat aacatgctgt tcttaagatt gactacatta agagcccttt 180

tttatttgac tccaacttga tatgatgttg taggcgcgct ggtgtcccta cccttactaa 240  
 tcccagaaac tttcacagaa aagcggcctg gcagttgcag gtggttcctg gctcgatgac 300  
 acgatggcga atgattgatg atcgttcgca tgtatctgac gtgttgtttc gctgaataca 360  
 atcacaatca ctgcaaggtc t 381

<210> 4652  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-E9  
 <400> 4652

ccgggtcgac ggggggtgga agaactaaaa tagaggattc tgaaaaaaaa aaggaccttc 60  
 gaaatccaat tttatgtgta gcgcaaagga gttgcgattt cttcttattc ctatagaaca 120  
 tctagtaaca agaatatgaa atcgtaaata gcgaaaaatt cttgtcttgc gcggtctaag 180  
 tctaaggaaa taaaaaaaaat tcgcttatac aatttcatct acatcgaatt tatatatcag 240  
 aatagcggat agaggcatca ttaaaggagt cagggtctact tactttatgc ttctttccaa 300  
 ttttatggtg gatttgataa gaaccctttt tgctttcttg ataaataatc gacaaaaaaaa 360  
 gcgttttttt tatataacct gcttgtttta ttataattat aacaagtcct atatggaaat 420  
 gcccgcataa gag 433

<210> 4653  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-F1  
 <400> 4653

ggtcggaaac acgggtcgac cgcgttttta cagacagtcc acctaccgca tcaggagcca 60  
 tagtgtgcat ggcacatacc aagggcaatg catttgtttt tcttattgct aaagctggag 120  
 ctctccagg aggaggagaa aacaccaggc cactgatcat aaccacaaat ggtgcaattg 180  
 gcgtcttctc agacagcacg gaccttgctt accaacaagc ggtgaaagat ggcgcggata 240  
 taataaattg ctgggtccgg atgtcgaaag acgggggtgc cttctgcctg ggctctacag 300

atctcaacag cagcacgaca agcagccaca acttcttggg 340

<210> 4654  
<211> 366  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-062-Q1-E1-F10  
  
<400> 4654

cggtcgacc tcaggtataa attcgtaatg gtaggcctgc accaccacct caggtacgcg 60  
atgatgtcca tattcctaaa ctgaaattga aaattcaacc atttgagggg aaaaagggtcc 120  
cggaataaaa tctaacttgg aagttagaaa cggaataaaa atttaaatgt ttacaatatc 180  
ctgaggagag acgagttgct actgccgttt gtgctttcac tagttttgca tgtgtatggg 240  
ggctctgaaca ttgtagatta taccctattc caactacttg ggctgctttg aaaactgcta 300  
tgcgtagcgg ttgggttcca ccatattatc aacgtgaatt gcttcaaaaa ttgcagcggt 360  
taagac 366

<210> 4655  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-062-Q1-E1-F11  
  
<400> 4655

acggtctaaa atcccggtgc gacagacaga tatagagaca gaaatatggg gagataatga 60  
gttcgaataa gaaagtgttg cacttgcttc atgggctaaa agcattccct gatgcaaatg 120  
tgagcaccaa tgacatcatt ctgcaagacc aaactcccta tgttttgaag ctacacaaca 180  
gaagtccaga agacagggct tgttttgaga taactggcca agcaccaagt tccctctggct 240  
cagattctgc tggtttccct acttggtcca aggtttctcc aacagctggg ataactctgcc 300  
ctggacagac ggtagaggtc actttgcagc atggagtcct gcgtggaaca tcgtggaata 360  
atttgtctgg ggctaaccat gaaaatgcag cacagttatc ggtgaaaata actggggcgt 420  
gttctaccgt tgccaaatgt ta 442

<210> 4656  
 <211> 247  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-F12  
  
 <400> 4656  
  
 gtaccgatct atcactggcc gaccggcata tggaagcagt tgaattgggg gaaccttaag 60  
 caaacggga ttctggtgtg ggttaccgtt aggaccgact ggaacaaaga agtggcccaa 120  
 gccagaaaa gattgaacaa atgggaaagg aacaagatgc ctccaataac aaggcaagaa 180  
 tgaacaatg gattctggaa aagattaacc ggaatgttgg ccgttcccaa attgattccc 240  
 ccaaaat 247

<210> 4657  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-F2  
  
 <400> 4657  
  
 ccgggctggc catgtcacgc acgttcggcg actactgct caaggactac ggcgatct 60  
 cggcgccgga ggtgacgcag aggaggatca cctcccgga ccagttcgtc atcttgcca 120  
 ccgacggggt ttgggacgtg gtctccaacg aagaggcggg gcagatcgtg gctgacacgc 180  
 cggagaggga gaaggcggcg aagcggctcg tccagtgcgc cgtccgcgc tggaggcgca 240  
 agcggcgggg ctacgcgctc gatgattgct cggcgatctg cctcttctc caccgcgcgc 300  
 catcgtagac gggcgcgcat tgccatgtgg accaggaaga gagagagaga ccagaatggc 360  
 ggatcactgc 370

<210> 4658  
 <211> 174  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-F3  
  
 <400> 4658  
  
 ggtcgaccgg acgaagaaga tgaggcagat gaagaagagg aagacgaaga agaggaagac 60



gaagaacaag aggaagaaga agacgaagag gtagaccacg acgaggaaga tgacgacgaa 120

gaagatgacg acgaagatta ggaagatgaa gacgaagaag acgaagattg aaga 174

<210> 4659

<211> 388

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-062-Q1-E1-F4

<400> 4659

ttgtggtgag ttgatcttag cctgtaaag cattttcaga acctctgatg gatgtgatgc 60

ggcttcataa tgacctgaca gtaaaccaca gtttcagttc ctcggttttc tttctttctt 120

ctgtctttct ttcttgaaac ttaaataatgt atttctttct ttctttcttg aaacataaat 180

atgtacatat ttctttcttt ctaaataatgt aaggaattat ttctaacctg catcatgtgc 240

attcaatctt cggctgttct ggctgtgcat tgccattgta aattatcgcc atttatacctg 300

ngagctcata gcttcccaca tgcggtgaac cgatgaaatc catccagcaa atgggtctggt 360

tttcagaaga actcgtttca agatttgt 388

<210> 4660

<211> 398

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-062-Q1-E1-F7

<400> 4660

cggatcatgta gtccgggtcg acgggggttg cgcgcacagg aagccacttc tggggattcg 60

aagggcaggg tgtcatccct gatatagtca ctatggcaaa gggcataggg aacggaatac 120

cgataggagc ggtcggtacc acacctgaga ttgctaaggt gtttaaccgc agaagctact 180

tcaacacctt cgggtggtaac cctgtcagca cagctgccgg ccacgctgtt ctcaaggtag 240

tggagaagga gaagctgcag gagaatgcgt tcgttggttg ctctacctg aaggagaaac 300

ttaacgctct gaaagagaag catgacatta tcggcgacgt tagggggaaa gggctccttc 360

tcgnggttga gctggtgacc gatcgccaga agaaaact 398

<210> 4661  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-F9  
  
 <400> 4661

accggtcaaa ctagtccggg tcgacggggg cgggagaga cgggtgctga acgtgacatc 60  
 catcggcacc agcgtggtga acatgctgag ccacctgctc tgcgactgcg gcgagaaggc 120  
 cggcaagcag cagagcaggg gcttcggagt gcgctgctgg gtaaccagat agtagtacta 180  
 gcagttgtac tacaagttaa gcgcactcgt taattactga ttgattgtcc gcttgctgcc 240  
 actgttgctt gtaagtaagt actaagatgg aaagatgaat caatccatgt gaatcgtgac 300  
 cgattgatgg attgctttgt gcatgcatgg gatgggagga gggccctttt ggttgtgtcg 360  
 ttggttagtg gcagagcatg tggctttgtg gggaggaaag aaagaccatt ggtcccgcacc 420  
 cacatgagag accgacggag tgcattggc 448

<210> 4662  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-062-Q1-E1-G1  
  
 <400> 4662

ggtcgacggg ggtagaaatc aaaaaatagc atcaagtgtt gatggttaac aaggccacta 60  
 gtttcaagaa aagggcaaag ggaaagaaag aggaacttca aaaaagaata gcaagcaagt 120  
 tgctgctccc atgaagaagc ccaaagctag acccaagcct ggaactaagt gcttctactg 180  
 tgaatgaaat ggtcactgga agcagaactg cccaaatact tggcggataa gaaggatggc 240  
 aaagtgaaca aaagtatata tgatatacat gttattgatg tttactttac tagtgttctt 300  
 agtagcccta gggattttga tataggttcg gttgctatga ttagtaactc gaaac 355

<210> 4663  
 <211> 325  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-G10

<400> 4663

ggtcgacggg tccataaagc catcggcaac ataaaagtgc gtacgtggtg ggcagtctca 60  
 cgaatgtctc gatgatgtga agaacatcct gttgtttggt tcagatcgaa gctgtagcac 120  
 ctggatgatg catgttcctt tatctgtaaa atgtgatgtt gtgaagttgg tgggggttga 180  
 gaattcttca gttgagtttc cttatgcat tcaataagaa catcattgtt tagtgcaccc 240  
 aagacctcgc tgtgatcctt ctctgtttgt gctttttttc tccttaaaaa aaaaaaaaaa 300  
 taaaagaaaa aaaagcggcc gctct 325

<210> 4664

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-G11

<400> 4664

ggtcgacgac gactcctact aactggagg tgcctactac tacgtgcagc ccgctgacaa 60  
 cgaccaggag tagtttagga ggatcccagg caggaggcct gcgcctcttt cgatttgtat 120  
 cccagtttgt gctagtcttc ttaaggcaaa cttgtttaac ttatgtctgt actcagatat 180  
 tgttgcttcc gctgactcgt ctatgatcga gcacttgtat tcgagccctc gagggccctgg 240  
 cttgtattat gatgcttgta tgacttattt tatttgtaga gttgtgttgt gatatcttcc 300  
 agtgagtccc tgatcttgat cgtacacatt tgcgtgcatg attagtgtac aattgaatcg 360  
 ggggcgtcac actatctata cagtatatta tgaacctatc atctgctagc tacccttact 420  
 tctggagcct attttttg 438

<210> 4665

<211> 401

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-062-Q1-E1-G12

<400> 4665

catccctaaa accattcacc ggtgtcatgc accggtgacc aatcccgta tgttcattca 60  
gactcagtag ttcatgaaa tcaccgaaac acacccatgg cagaccgtca tcctcagcga 120  
gagatctcaa cacgtcccaa gtcttgctc tatcactgac ttgtgcttca cgtacatca 180  
ctgtgagccg ccatggagaa gcaccaggca aagtaacatg agcatctatg tgataagcag 240  
agtaacaaaa attttcaatc tttatttcat tattccaaaa aataccgaga ccaccactcc 300  
taccagagct actaacagca natgaattat cataacctag ggtgcttgct aagttttcca 360  
ctctatctct cgggagttga gtttcaacan tacaagcac c 401

<210> 4666  
<211> 247  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-G2  
<400> 4666

cgaaggcaat aaaacatcta aataaacttt tcccgaaaca aatttccatc cagcttccac 60  
aggatgaagc attacttacc agttggaagc aacaattgga tcgtgatgtt gaaaccctta 120  
aagcaaaatc taacatcggg agaattcgta cgtttttgaa ccgcattgca atcgaatgca 180  
atgaccttga tgaattattc attaaggatc agtcaactgac taatgaaaat gtggccaaaa 240  
ttgtcgg 247

<210> 4667  
<211> 262  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-G3  
<400> 4667

tacatacgct ttccacgaac aagggtttcca tccagcttac acaggatgaa gcattacata 60  
gcagttggga gcaacaagtg gcttgtgatg ttgaaacca taaagctgga gtctacatcg 120  
gtagcaatcg gacgtttttg aatcgcatg caatogaatg gactgacctt gatgcaatac 180  
tactacaga tcagtcactg actaatggaa atgtgggcaa gattgtcggg tacgctgtca 240  
atgatcatct taaggaaaaa ta 262

<210> 4668  
 <211> 132  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-G4

<400> 4668

cggaggccgt tgcgtagtgg cgctcagcac ggccaacctc tcacagttga acgacgtcgg 60  
 ccctggcgcc aagctgatga agatcggcag ccgctccatg tactcaccgg gattcacgtg 120  
 ctactcggcg ta 132

<210> 4669  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-G6

<400> 4669

ggtgcggagt cgacggcaac acggaggtga aaggagttcc atgtccgagt cggcgacaac 60  
 gtgcgtcatc gtcggcaaca tggaggcgag tcaacggcaa ggtgcggcac cggtgacgaa 120  
 catggaggcg agtcaccgac gagttgcggc accggtggca aacaggcggc agcgagcgtg 180  
 ccacggcagt gcactcatgg tgaaggcgca cgaggtgcgg ctctcactga agctagcggc 240  
 gacggcggca atcgatgtga caagatggca ttggcggcca tctccgtgtt gcaccgacga 300  
 catcgacgac cacgggcttc aagagagaaa taagttaaca agattatgga ggtgaatgtt 360  
 agaactaatc ttgttattag cgctagtttt agat 394

<210> 4670  
 <211> 498  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-062-Q1-E1-G7

<400> 4670

gggtcgacgg ggatacagac aaaaacatca agagacagat tatctcgcat tgaagcagaa 60  
 ttgtcacttt tgaaagaaag gcagaaggga ctgactgagc agtgggagcg tgagaagtcg 120

gtgatgacaa agatccaatc tattaaggaa gagattgaca ggttaaagt ggagatccag 180  
caggccgagc gtgagtatga tctcaatcgt gctgctgaac tgaagtatgg tagtctgaat 240  
gcattgcagc gggaccttca aaaaactgag gatgagctaa atgaatatca aagttctggg 300  
aatccatgc taagagaaga ggtgacccaa gatgatattg cagagattgt gagcaagtgg 360  
acaggtattc cagtttccaa gttaaagcaa tccgacagag aaaagctact gtatcttgag 420  
gacgaactgc acaagcgtgt agtggggcag gatcctgcag tcaaagcagt tgcagaggcc 480  
attcagagat ccagagct 498

<210> 4671  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB103-062-Q1-E1-G8

<400> 4671  
cgggacagaa aggataatgc atatgtcaca aaactcagta agtgggtattt gatgggttttc 60  
agcatataaa tcaaagctca ctttaggggg attatttgta ggcaagaaag taaagctctg 120  
aacagagatg tttgtgagga tttgggtgctg gccacactca tctgcatga agttgggtgag 180  
gccggcatta gaaatatatt gcatgaactc ctcatgaatt ccagcctctt gcaggaatgg 240  
ggtgtgcggc catccgcacg gacgtacctc cgccaacccc cgagggtgga gatcactgtc 300  
agaagactcc ccgataaacac cettggagtt cttcttcgag ccaaacttcc tgaagatatt 360  
catgttcgcg tacaattttt tgaaaataaa aaaatttggg gtgatgaaaa atcgtcaacn 420  
aaactttata agattgatag caactactca tagggata 458

<210> 4672  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-G9

<400> 4672  
ccgggtcgac cggtgaagtc aaggacatgg gttccgacaa ggaggagtag ggcatggaag 60  
acagccggtg gcgcctcatg tctcatgtgg gccagtccat gtcccatgtc gtactcatcc 120

ttgccggctc cgattcttca ctttgcgggt ctacacggccg acagacatgg gcacggaagg 180  
gaacaaccaa ggatgggcat caacgaagat tagactaatt ttaccttgc aatgtaattg 240  
tatggatttg atgatttgct agtaatgtcc ctagatgtga aagaggacat ttcggaggag 300  
cctgtggagg ataccaaaga ggatgccgct gtgtgaatcc gccagaaacc tggcgccaac 360  
atttaccaag tcgttgtagc tggagcacca ttgtttggga gctctcgttg tac 413

<210> 4673  
<211> 373  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-H10  
<400> 4673

tacggcaaat tattagcaac gggagatagc cygagatgaa acggcgagta ttaagtcagc 60  
ttcgtcggtc aggtcgggcc ttgtttatcc cgtgtcctgc tggccctgaa caaacccaac 120  
agctcgagta acgtgacttt gtactctaataaatagtgtc acgggtctctg gaaacaaaac 180  
ttctatattag atgggtcagc attttttttt ttgcgaagaa tggctcagca ttcattgacga 240  
atggataaca acttgactgt caatttctgt cacaaactca caacccttgg atgaataaaa 300  
atatcttaaa tgaaatagaa aaataggggg cgcctacttt tcgcgcaact gaaaaagggt 360  
gacctcagcc gat 373

<210> 4674  
<211> 349  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-062-Q1-E1-H12  
<400> 4674

aaggatggag gtaaaggcgg ttcacatcgg gtcaggctt caagcttcgg cgggttccaa 60  
ccaagcaaaa gtcccaaagg ccacaaaaac caaggacaat ccccgcaaaa caatcaatgc 120  
cgaaaagcca actctcaacc aaccctcgag taaaaacgat cggagctctt gtctcgagcc 180  
aaggtaatgg aggaggcgat gcaactatac aggggaagctt gcgcgggccg cgggaccgaa 240  
ggcttctgt aggttgacgc tttgaactct cctgcctgtg gctgcgtggg aagtcgctcg 300

gtggcgggtgc ctggcacgga aacatgtcct ttgttacctg cacggtgac

349

<210> 4675  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H2  
 <400> 4675

gttgggaggc aaccaatatt tatttttggt ccttactttt tgattatggt tagtaataaa 60  
 taattcatct atcctgtggt aaaatgtggt ttaaggcttt aaattagggg tgggtgccaat 120  
 taaaaccttt tggaggactt ggggaaattc tttgcaatth ggcggtaaaa aacagaaact 180  
 ttacggccca caaaatttgc tgccgttttt tacgggaaat tgcaattagg ttgatccttt 240  
 ttgcagatga ttaatagata aattcctcac gtcaaaaaat ttatttcaga atttttgggg 300  
 tacgaaagta ttcgaaacct acagattact acagactggt ctgtttttga c 351

<210> 4676  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H4  
 <400> 4676

gatggcgaac ggataaggag gccagcagcg tcgcccacat cgagcacttg tttgccgagc 60  
 tctcctcggg cggtcagaag gtgcttcaat tcaatatgct gtccacgtct ggtgggcagg 120  
 atgccctcaa ggaatccgtg gacaagcatg gcggctgccc cggcaacaag acggtctatc 180  
 tatattctgc ccaatgcagc gcggactgca acgaggcatg ctctaaccac tgogacatgg 240  
 actgccccta catagccgca agatttgggt acatcatggc tacacctgcc aataagaaag 300  
 ccatogacca agacatggaa tgcttcaagc gttgctcaaa ggaaaaggat gccacaaatg 360  
 acaaatgccg cgttgcatgc aagctggctg cctcgtctcc ttgaaaatgc atactctctc 420  
 tttttttaac ccatgcttca ttcaactctc cttttttttt ttt 463

<210> 4677  
 <211> 481



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H5  
 <400> 4677

tccgggtcga cgggtagacg attctgatgg tgtatacctc gtccatttga aagagcttga 60  
 actccggatc tggctccata agggggacga ttggttgctg gtccacaaca tttgtctgcg 120  
 tggcaagttt gctggtttga gtatgctaga tggcaatgct tttctccaaa taaaacaggt 180  
 gggggacaat gccgagtatg tgttgctgga gatgatgtgt caatgcgcac tctacttgga 240  
 tatcaagtgc aggacactgc atacagtgta tgaggtgaca aacgaggatc gatatttggg 300  
 cgatatacat cctttcatga tgatatggcc tccaaagtcc cctgcgctca aggatgatcc 360  
 tgcaacggca agaaatgcc a tggaagaac aagcctataa ctgggagttg ctggatggta 420  
 tgtacatatg tcagtggtaa gctttggcgg gtgcaatcaa agatgagctg agctgcattt 480  
 c 481

<210> 4678  
 <211> 486  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H6  
 <400> 4678

ggggcgaaaa aaaactagcc tcccttggcc tcgagagaga cacatgggaa cgggtacggg 60  
 aacgggtgtg tatttactga aaatacaaat acgtaaaatg tggggtatat ggcccttctt 120  
 tttctcgtcg caaacatttt ccagaccggg aacttggtggg cggggggcgc agagatagag 180  
 taccacacgc atcacatgcc cctgtggaaa ttgcaagtag caaaaaagga aaaaagaaga 240  
 taagagccga gccccgcccg gtcaagaaaa aaagagcctg ccggatgcag caaccgaccc 300  
 gaggtggcc gactattttg ccccggcata tgctgtcggg ctgatgctct cgaatctctg 360  
 gattatttgc ggaatatcct ttgccatcat taaacaccgt cgaaagagac aagcaagcga 420  
 gctcgtctct gatcacaacc agctcgccca aggggcgaaa cgcactacta gtctgtctaca 480  
 gtacat 486

<210> 4679  
 <211> 492  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-062-Q1-E1-H7

<400> 4679  
 gggccgacct ttgcataaa cttagggatc gatcgatgcc ctaggccggc ccattaatgg 60  
 gttgcagcgt tttcggcttt gggaaccttc tagagtttcc cagcaggttt ttctggtatt 120  
 gggaaccttc tagaagggtc caaccggttt tctgtttct tttttttcc tttttagtgt 180  
 ttctgtttat tctctgttt cttttttatt tatttttctt tatgctgttt cttcatttcc 240  
 tcttttcttt tatttttgcc ttttttcctt tttcatgttg atttcatgtt gatatttgtc 300  
 ttttttctaa aattaaaaaa atcagatttt aaaataagct ccactctatt aaatatgttc 360  
 ataaatccga aaaattgtta atgtaaattt gttcacaat ttagaaaatg ttcataattc 420  
 anaaatactt ctggaatttt aaaaaatgtt cacgggtgca aaatttggtc cgtgattcaa 480  
 aaaatgttcc cg 492

<210> 4680  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H8

<400> 4680  
 gatggcgaag ggatggcctg agacgggtgaa gcacgagctg cacgagcacg agctcgtgct 60  
 gatccgccgc ccaggccat acggctgcga cgggtgcgaa gagatgggca cctcctggtc 120  
 ctacaactgc gcggagtgcg acttcgatct gcacgccaaag tgcgcgctgg gtgaggagaa 180  
 gaagggagag gaggtgaatg ggcaggagca tgccgctgcc ccagctgggt acgtgtgcga 240  
 gggagacgtc tgcaggaagg cctaggtagc gttagcgttg tgtgtgttcc ttgccagctg 300  
 aagcgtgtct gaatcatgtc ctgtgtggtg tgatgataaa taaatcttgc atccgatgat 360  
 ttggcttggg aagtatttgt cgtggtgaca tttatgtgca ag 402

<210> 4681

<211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-062-Q1-E1-H9  
 <400> 4681

acggtctact attccgggtc gacggggaaa acgaccaacc catggacgag gagtatgagg 60  
 aggagcaggt tccagattac tcgagagcct attctgggtg attgagaccc cttgcccatt 120  
 tcatgatgga tgatgagacc gaggatgatg atgaagatgc tgaaggggac ggagaggggtg 180  
 acgaggaaga atatgacgtg aaccatgctt ccgccgatgt tgatgatgag atggacgagg 240  
 atgatgatat aggtgatgat ggggatgatg gtggtgatgg agttgaggtg aatgcagatg 300  
 aagatgaagg cgcgacctca tactcgtcag agtacagtga ataagagctt ctgtctccgg 360  
 tgaccattta tgcaggtagt gatactgggtg gacaataata agccttttgc ccctttttgg 420  
 gggcatagtg ggct 434

<210> 4682  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-A1  
 <400> 4682

ccgggtcgac gggcaaaccg aagggaactt gcaaaggggtg ggcacaagg gaacgccgac 60  
 caaccgacgg attgcagcca ccattagacc tttgtggatg cagttgtggc attatttttc 120  
 ccattgaact gccagggggg aatgagcttt aatgctgggt gtgttggtgca cgggtgaaac 180  
 gtttggtgtg gatatttacc gtaggcattg ttttgtacca ggtgccttgg taattgtcct 240  
 ggtgtggaat ggatggtttg gaattttgga acggccatgt aagcgtgtaa tcctaattag 300  
 ggcccaacc tatatccatt cgaaggacac cctaagacgg taattaaatt tgaacccta 360  
 ataaagcctt ttaataataat tttttgttcc 390

<210> 4683  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB103-063-Q1-E1-A11

<400> 4683

gtaaatgaac tattcgagca tgcaagacag aatgtttatt tgaaggttta gagtttggca 60  
catacaaatt tacttgggaac ggcaggtaaa taccgcatat aggtaggat agtggactca 120  
tatggaacaa ctttgggggtt taaggagttt ggatgcacaa gcagtattct cgcttagtac 180  
aggtgaaggc tagcaaaaga ctgggaagcg accaactgag agagtgacaa cagtcgtaaa 240  
catgcattaa aattaatttg caccaaatac aagcatgagt aggatataat ctacatgaa 300  
cataaatatc atgaaggcta tggtgatttg attcaactac atgcgtgaac atgtgccana 360  
tatagtcact caattcattt aaaggangga tacatcccat cnatacacat cataat 416

<210> 4684  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-A12

<400> 4684

gtaccgtact agaattcgcg ggccgacggg ctaacatatg agtgtttaat ttttttttgt 60  
ttgccacaat catccttgct gtacacacct ttcgagtggg acacgcatga attgtgaatt 120  
attagaatac tctatgtgct tcacttgat cttttgagct aggcaatttt gctctagcgc 180  
ttcgcttata tcttttagag cacaatagtg gttttagttt gttgaaatta ttgaactctc 240  
atgcttcact tatatcattt tgagaatctt tttaaacaac acagtaattt gctttgggta 300  
taaatttagt cctattatga tagacatcca agagggatat aagaaaaact ttcataatac 360  
gtgcattgaa ttccatgaga actttgattc cttataattg ttttgagata taaagatggt 420  
gatattagag tcatgctagt gagtaattgt gaattg 456

<210> 4685  
<211> 239  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-A2

<400> 4685

ggtcgaccgg gctcggaggc tgatcaagct gaagcccccc gtggagccat gatttttgca 60  
 gttgaaaaat ggttccttgc ggtgtaggta ccccttggtg aaacccttga tgatacccca 120  
 caacaacggg gaacttgtgt gatcctccgg tctgcccgt acggtgtaca aaaatttctt 180  
 tgatggaaat gtgatttggc caaatgggtt cagtttcaaa aaagaaaatg aaccggaaa 239

<210> 4686  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-063-Q1-E1-A3  
 <400> 4686

tgatcgccgt cggcacgcta cctctacatt taccacggg attatttttaa accctaaaaa 60  
 atggtaatta atggccagtt tggacaagga caatggaacc ggattctggt taataccaaa 120  
 atggtaaccc attaaatccc ggaacaataa gtgggtccat taaaatgaga aatagggtta 180  
 agggcatggc cccatgggca atgggttatt cctaataat ctcgaacgta ntgttacaca 240  
 tattcatagt gtgaatacca aaagatgtaa agttgataac gatagtccca catacttgtg 300  
 gcactgccgc cttg 314

<210> 4687  
 <211> 295  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB103-063-Q1-E1-A5  
 <400> 4687

gaaaccagat gatgggaaaa tgaaaggcat cgcattcatc aaggatcctg atggttactg 60  
 gattganata tttgacctga agaaaatcgg ggaagtgact gctgcngcat catgatgaag 120  
 tgttgaaact ccaatgccgg taaaatggct tcgcgccttc agaaatgata tgaactcagt 180  
 tatacggacc atgcttacat tcttgaccg ctagttacag cgtcatgagc aaagatatca 240  
 tgtgaccgat gtttgagcat agatctggcg ttgtaaccat tcagtaatgt aagct 295

<210> 4688  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-A6  
  
 <400> 4688  
  
 tccgggtcga cgggcctgta aatcagttat agcggagcta tagcgggcta aagcggacta 60  
 tttgtgaagg cgaccattta gcggcacctt gctgaaaagg ctatagcggg ctatagcggg 120  
 gctatagccg gctattttaa actatgatta gagagtgatg ttattttctt cctatgttgt 180  
 acaagccaga aacgttttgt gaacggaaac accatcatgg cctttaataa agctacaatt 240  
 gaatctttac cattgttttt ctgtaggcat ttgtttgctc tgcttaaaac tgtaaaaggt 300  
 ttaggttga ctgcagttca tttgggctga ggaaatccat gc 342

<210> 4689  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-A7  
  
 <400> 4689  
  
 gctaaaggac gccaaaggtag tgcggcggcg acgggctcgt gacccctcc acatccacgc 60  
 atccaaacta caggccggcg cggacgcgag ctagatggct ttggaaaccg aagcgggtggc 120  
 gtgctcgtga tcccctccca tgcgtgtttg aggagcgtga atccaggggc agcatacgcg 180  
 gcgagatccc atcctaggcg tccttccgtg gtggaagatg atggctggta gtggatctgg 240  
 tggatcctag cctaataagc tcgaagccgt gatgttgtac tctgctttca tatgaatacg 300  
 actacgctct ctcaagaaaa atcaacgtgc ttacttggct gtgatttggg tttttg 356

<210> 4690  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-A9  
  
 <400> 4690  
  
 ggaaattgaa gctgggaaat cctttatgtt gcggaggaag ttcggagatc cacggtatgc 60

ctctctagat cggctatgga gtttggagga tgtgtatatg gatttggcgg cgagcgctgc 120  
 cgatgcggcc aagtacttcc agggtcagac ggaccatgaa gtggaccatc tattttggac 180  
 acaattccat tctcccagac gtccgctttc attgattgac caattatccg aatgggcccga 240  
 actgaatagg ttgtccggac ttgccatgag gtctgttggt gatcagctat ggccggaaag 300  
 gccaaaactg aacagctatt ttagcttggg gcatcagctc cttgacgtgg tgccgcgcac 360  
 taatgcgatg aagaggttgg cgtgcataga gggctcacgg atggcctttg cccgtgttaa 420  
 a 421

<210> 4691  
 <211> 319  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-B1  
 <400> 4691

ggcgggtgctt agtgaactta gtcaatatga acgattctag ctccagtgac cgtacgatgt 60  
 ccatccaacg gccgttgtgc ttcttcaact ccgggcctcc tggctcaagc ggccaaaaga 120  
 accttcggcc ttgccccttg tcctggcttc ccttggccgg ttgtaatcca atggaggctt 180  
 aacggcccca atttctccaa cggctggcaa ggccttgagg caacggaagc ctcaaacggc 240  
 tgccaaacca ttgaaaaccc gtattcttct ccgcttgggc atcaactgct gcttcttccc 300  
 cggctccgcg tcttcccct 319

<210> 4692  
 <211> 238  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-B1  
 <400> 4692

tgtggtgaaa atccctggta cttcaattat ttcgtttgac cttgccggat tctgcgcaag 60  
 tgtctcgatt ctatctattt gttcacggtg gatgatgtgg tttgtggata ctgctctgat 120  
 cgcaagggtc cgctcttggg ttcaactgagt gtttgccaac cacatcggat ttgcaacctc 180  
 cacggaaatc atcctagtcg ggagatcacc caaatagatt gattctacga tgaatgcc 238

<210> 4693  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-B12  
  
 <400> 4693

attcgccggt cgacgggcag gcttagaggt acgttttttag ataacgaaca tttagtgttt 60  
 attacgcata ataacatgca tcctatgtag atagtagccc ctgagactct gtgtggcgca 120  
 aagatgtgcy acatgtagag gatcttaatc ccaggtagct aagatggtgc cctgtatata 180  
 caggcgggctg attgtccggg gtcaagccgg acttatgaat atgccgaaat gaaacagcaa 240  
 cttgacgagg cagaaaccga catcgcgctg gttaaccaac ggcttgatga ggctcaaggt 300  
 attcatactt cttggcgagt attagtaaga ggagttatag gttaatatct taccttgtgt 360  
 atgcttgatg cagatggtgc ggagccggtt gaaggactta aggccgaact tgccaaggcg 420  
 aagagccaag cagag 435

<210> 4694  
 <211> 306  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-B3  
  
 <400> 4694

agcccaaagc ggagaagcgg gcgccggcgt ccaaggaggc cggcggcaag gcgaagcagc 60  
 ggggcacgaa gaaggcagca gggcaaaaaa aaccttgaaa atttacagat tcaaaacctc 120  
 cacggtgttg aagcaggtgc acccgactt gggaatctcc tcaaaggcaa tgtcaatcat 180  
 gaacccttc atcaacaaca tcttcaaaaa cctcgccggg gattcgcca atctggccc 240  
 ctacaaaatg aagcccacca tcacgtcccg ggagatcaag acctccgtcc gctcgtcct 300  
 ccccg 306

<210> 4695  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB103-063-Q1-E1-B4

<400> 4695

ggtcggtatc acgggtcgac cggccattaa ctctgaataa attaaaggca cgaagtgcgt 60  
accatggtat cggcttggtc aaattaatgg gaaaaagcat tggttccatt gcaaggcagg 120  
cttcccttcc aagtgggcag gttgagtcg gcttaatacc agagggccca tttgcgctcg 180  
atggagaata tgggtgttta cagcacctcg agcagttaat aaagaacaag ggattctgtg 240  
tggtttgtgt tgctgaagct gcaggacaag agttactgca aaactcaggt gcaactgatg 300  
catcaggaaa tgcaatactt aacgacattg gtgttcacat gcaacaaaag atcaagacgc 360  
atttcaaggg catcgggtgc catgctgata taaaatacat cgacccgacg taaatgggtcc 420  
gggcttgtcg tgccaatgca tccgatgc 448

<210> 4696

<211> 341

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-B5

<400> 4696

cctcctcgac aaaatggagg acaccgaccc caagtccagt gcctctgctc eggctgctgt 60  
ccagtacgtg ttcttgtttt tctgttaga ggtctttcca cagttccttg ttctagtgtt 120  
tgccctacac atggttaggat ctacctcata tatgcatctt gatctactgt gtgctcgata 180  
gatgatcggg tctagctcct atatgcacat gttatttacc ttcactttgt cagatcgcat 240  
gacttgtttt atcactgcta tactagtcac gatttatcta gtaattctgt tatcatgatc 300  
actcgataaa attgctcata tttccaacat actcactcgg t 341

<210> 4697

<211> 170

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-B8

<400> 4697

ggggcatcaa ttaatctttg ggttttgttt agattgaatg ttcgctatag ctgcatcttc 60

gcgtacttcg gttgggttca tcgagtatac agccgtgtca cagaacccga tcctgatcat 120  
tgctgctttc atcttatgtt cgcaatatcc agattgcact cctacattct 170

<210> 4698  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-B9  
  
<400> 4698

gccgacggga aaattgatcc tcttgatgtg gacgcctgcc ctcgccctc tcttcgatcg 60  
cactgtgctg ataatgcgat cgagggcctc gatcaactgc acaaacacta tgcttccctt 120  
gtactagtac actacagtct cagatgatga taacgcgaca gatatggact gtgctttag 180  
taacaaaata tgggtgctgg ggctgcactt aagctttacg agagtacgac tgaccctata 240  
tgatgcaggt gtgctctctt cgaaaatata ttgtctctc caatgctttt gggatggatg 300  
ggaacatccg gggccagtgg tgctgcctca tcgcgtttgg ctgcttccca cacttggtta 360  
tctccatgac cctgtttcaa gaatggggat gtacctagtc agaagtcac 409

<210> 4699  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-C11  
  
<400> 4699

attcgccggc cgacggggtc accaacctgc ggtccgagaa ggtcaaggac gagatcgctc 60  
tcgacggcaa cgacaccgag ctgctctccc gctccgccgc cctcatcaac cagaaatgcc 120  
atgtcaagaa caaggatata aggaagttct tggacggcat ctacgtcagc gacaagggcg 180  
ccatcaagga ggagtagaga gccggaaacc gtcccgccca ccagaagccg tgtttctgcc 240  
tgccgtgttt gtttcatcgt gtttgtgtct gtctgtcgtc gtcgtcttcg tgattttgaa 300  
ctttctctag actgaatttt gtagcggagt taaattttta gggatgtgcc gtggaacatg 360  
ctatctttat tgttatcctg cgtatcgtcg ccgccgcgag aaccgggtgcg acgcttatct 420  
agccct 426

<210> 4700  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB103-063-Q1-E1-C2

<400> 4700

gtcgaccggg acgaatctga aaaacagggc aattcaaggc ctcccaaac aatgttgggc 60  
 gccatgcatg caatgtggaa caaggaaggc atccaagggt tcttcaaagg attgcatgct 120  
 cagatactaa agacagttct aagctccgca ttactgctga tgataaaaga gaagatttca 180  
 aagttcactt ggatctcgct gcttgcgctg cggcgatacc tctttgtttc tcggaagaga 240  
 atcaagagtg cataattgta ttatatatct cagacctgag aaaaccagtc taatcgacca 300  
 ctggtatttc aagatctcat actaccaa atacagaagta cagaagcgga acaacacgat 360  
 tatcttgaga gcgccatgga atgttctgaa taaatttact tggntttttc 410

<210> 4701  
 <211> 281  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-C3

<400> 4701

cgaccggcac gtcggccaaa atcgaccgct acaacaagaa gccaccatc acgtcaaggg 60  
 agatcagaac ctggttcggc ctggtcttcc cgggcaagct cgcaaaccac gccttctcca 120  
 agggcacaaa ggccttcaca aatttaacct ctcccaaggc ttaacctccg tttctcaacc 180  
 cgttggattc ggtaggtatt aacctgcagg attgtgtcct gaatgtgtaa ccttggtgctg 240  
 ctggtgggtc tgaagaaata ttcattgggac tgcttaataca a 281

<210> 4702  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-C4

<400> 4702

ggtcgaccgg tcgagcttta taaacaagac gaagcagagc aagcccgga agacgcagtc 60  
gacctcctag aggaggagag ggaaatggcg atgatcagat cgaccatcta tcagcaagac 120  
ttgctgcaat tcaatgctaa aaatgtgaaa agccgagcct tcaagaaagg aaatttggcc 180  
ctccgagtgg ttcaacagaa accacacaaa cttgccccaa cttgggaagg tcccttcac 240  
gtcaccagag tctccacaa tggagcatat cacctctaca aggttgatcg ccagatcgac 300  
gagccacgag cttggaatgc ggaactattc cgcccccttt aaacttgagt tctcccttgg 360  
acgggatgt 369

<210> 4703

<211> 476

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-063-Q1-E1-C5

<400> 4703

gggcccagcg gcagcaggaa cccgttctaa ggattctttt tagattaaga ccctgcataa 60  
acctttttta ctatctcttg ttgatacaca tcccccgat tctcagtaca attgataagg 120  
atgctgacgt attggcatgt ggccacgtca gaatgttgca catacctgga caccaggggc 180  
ttattacaaa gggcactgtt tatgcccgat ttacgccata nagaccgaat accttaagga 240  
gtgttcggcg ttgcgagttt ggccttatat gcatcagctc cgaatcatgt cattgggtcaa 300  
atcttggtt tgcccggatc ctgtgttttg ctaccttatg ttccactcta ttggctaagg 360  
cggcaccagg agaactactg ccaatgttgc ctggttcatt tcgacgagca cctcagtaga 420  
aaaaaccgaa aactgactgt catgatatag cgtgagacta gtcaaact cgatga 476

<210> 4704

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-C7

<400> 4704

ccggctcgac gggggtatcc ggtcacctaa atattttcct ccctgtcgcc ctccctcctt 60

cctttcctcc actcgcgctt cgctctcaga tcccttctcc tccgtctcgc ccgcgtgttg 120  
 gggtaggagc catggcggac cagctcaccg acgaccagat cgccgagttc aaggaggcct 180  
 tcagcctctt cgacaaggac ggagacggct gcacaccac caaggagctt ggaactgtga 240  
 tgcgctcgct ggggcagaac ccactgagg cagagcttca ggatgatgc aatgaagtgg 300  
 atgctgatgg caatggaccg attga 325

<210> 4705  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-C9  
 <400> 4705

ctgtggtgaa attcacggac aattccatga ttttgttgag cttttccgga ttggcgggaa 60  
 gtgtcctgat actaattatt tgtttatggg ggattatgtg gatcgtggat actactctgt 120  
 tgagactgtt tcgctcttgg tagcactgaa ggttcgccac ccacatcgga ttacaatcct 180  
 ccgcggaaac catgatagtc ggcagatcac acaagtatat ggattctact atgaatgcct 240  
 acgaaagtac ggcaatgcaa atgtatggaa gatattcaca gatctttttg attatttccc 300  
 attaacagcc ctggtggaat ctgaaatctt ctgcttgcac tgtggtttat ctccatcgag 360  
 tgagaatctt gatagtgtgc g 381

<210> 4706  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-D10  
 <400> 4706

attcgcgggc cgacggggct caccaaacc cagacgaaac cctaacctgc ctcccaggag 60  
 cgccgagtc ctccgtcccc aacagatcta cgccgaggt tcggttcggt ctccggagct 120  
 cgagacatgg cggaggagaa tgccccagtt gaggttgctg ctccggttgc ggccccctacc 180  
 ccagttcttg gagagcccat ggacttgatg actgctctgc agcttgtgat gaagaagtca 240  
 agcgctcatg atggacttgt caagggactc cgtgaagctg cgaaagcgat tgagaagcgt 300

gctgctcaga tctgtgtgct tgctgaggac tgcgaccagc ctgattacgt gaagctggtg 360  
aaggcactgt gtgctgagca caatgttcac ttggtcactg tgccctagtgc caagactctt 420  
ggcgagtggg ctgggctttg 440

<210> 4707  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-063-Q1-E1-D11  
<400> 4707

gacaacctaa tctatgccgg ggaggccacg agcgtccagt acacgggcac ggtgcacggc 60  
gccttctcca caggggagat ggcggcggag gagtgccgga tgagggtcct ggagaagttc 120  
agggagctgg acatgctgga gatgtgccac cccgatggccg agcaaacggc caccgtctcc 180  
gtcccgetgc tcctctcccg gctgtaaaca gtcgccccct aaactaccta cctattgtcg 240  
cggcaggttc gccggccggt cattccagtg attgctcgga gaaggcagcg tgggagcaat 300  
ctatccttgc tcttctctgt ggcatgaggc gtgtggctgt gtgaccctgt ggtttgctga 360  
ataaaattac tgctgggtaa taaaagattg tgggcgtctg gtatgtatac tgtcagcgtg 420  
atgcgggggt t 431

<210> 4708  
<211> 129  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB103-063-Q1-E1-D2  
<400> 4708

gtcgacgggc aagtgtgatg aataaattat tagaacattg cccaaagaaa aaaaaagaaa 60  
ggccaaaaag aaaaaaaga aaaaaaggc ctaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaccggccg 129

<210> 4709  
<211> 213  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-D4

<400> 4709

gtcgaccggc cccagggatc aagacagcct ccccgatgcc ggcgcgccgg tcgcccaggt 60  
taaaaacctt gaaccaatta aaaaaggtga aaatttccaa aaaaaaggaa aaggtcctta 120  
aggtggaaag gccttcccca atgaagaaag gtgcaaagga aaaatttaaa ccgaaaaaca 180  
ataaaaacct ttaaggacaa gttggaaaac ccg 213

<210> 4710

<211> 470

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB103-063-Q1-E1-D6

<400> 4710

gggccgaccg gacaggccaa ancagtctct tataataagc aaagtgttcc tgaggggtaca 60  
cgggaatttc atctagtcac tttcatcatg ttggtttgat ttgtgttcgc tactttgata 120  
atattgatatg tgggtggacc gtgcttaggt gttgttctta cttgaacaag cctectactt 180  
atgattaacc ctcccgcaag catccgcaac tacgagaaaa gtattatgaa taaattcaaa 240  
ccatagcatt aaactctagg atccaatcgg tcccttatgg aatagtgcac aaactggggg 300  
ttaagtttct gtcactcag taaccaccca tctatttact attccacaat gcattccctt 360  
acgcccacaa atggtgaagt gtcagtgaat cgatgttcag atgacaccac taagggaatc 420  
acaacataca tactatcaaa acaatcaaca catatcagac tcacattaat 470

<210> 4711

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-D7

<400> 4711

gggaaaccag ccaccggcaa ctcatattct cggtcgccg ccggcttccc atctgctccc 60  
ccgcgcagct cgcgggcaag gaggggttcg atccaatctt tctttccact tctcctgag 120

tcctgaacta ccaacgcggc tgtaaattctc tgccatcgcc gtccgcgttc ttcctcatcg 180  
 caacatcgtg cccctccgca atatttgccc agtgggttct aaggtcaaag accagagtat 240  
 aaaataaagg tgggttactg ttaatatctc atacaatgga gtccttgagg aagctgtcct 300  
 atttgcttga gccggcgtca cttgctctca tcgtgacggc tgtttcagtt gcctatgcat 360  
 cagcgtctcg tgctc 375

<210> 4712  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-D8  
 <400> 4712

ccgggcccgc gggattgctt aaatagggct aaagataatg gttatgtttg gagagttaaa 60  
 caaccgaaac aaaatccaga aaaatctcca ctgttgattc ccacgcccac cacgagtcag 120  
 catcctactc cctcgccctag ggactcctcg ggtatagaga cgacccacgc atcgggtgcag 180  
 acgagtccca tcaegtcttc acctcttccc gtgcaacacc agcctgctcc acctccacca 240  
 gagcaagaca tggcaaactt tcccctagat cctctcgagt ttcttccgcc ggggttcgag 300  
 atcatcgatg gaggtccaac ccgtctgcct cggaccttct actctccggc cattgcacct 360  
 gagcgcgcgc acgagtagtt cgccattggc tttgtcgagc ctccgcccgc acctggacag 420  
 attcatccct tctattaact ggtagtgat tttgtgatga cccagctgca ccgtgacg 478

<210> 4713  
 <211> 109  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-E1  
 <400> 4713

ggtcgaccgg acgaggttca gcacggagtt ccagctcgtc ttccgtctga tcaaggggct 60  
 gatattcata acattcatct ccatcatcat aatcttaaca gcaatcgcc 109

<210> 4714  
 <211> 431  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB103-063-Q1-E1-E11

<400>       4714

```
ggccgacggg tcaaaaaatc atccccctag catttacatt atttgccatt tgcctctcgt   60
tttctctctc ccacttcac ccttgctgtt ttattttccc tctccttccc aatctcctct  120
cttttccatt tgccttcccg ttgccatggc tgagtcaaaa agaactaagg gatctctccc  180
tagttttagt gccttgata gccctctgt cctctctaata ctcttaaata atgatgctat  240
gggaagacct accgggggta tcaatgagat ttttaattaa ttgtgatgaa gatgactcca  300
taatttttct ttatttgctt gatgagtctt taaaagatgc ttgggatagg ttattaagga  360
ttcgggctag ctatgtgcca caatatcaaa ttgaagttaa cttaaagagt ttttatgttg  420
gcttgccgc t                                                                431
```

<210>       4715

<211>       417

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB103-063-Q1-E1-E2

<400>       4715

```
ggtcgaccgg acttcagatc taagtccatg gttgcatgct taggtcccat gcaataaatg   60
agaatgaatg tcaaacaccc tgccaccgtc actcgccgc aaacattgag atacctgggt  120
ttaaattcta gtagatcgaa agctcgtctg aaattcatga aacttggcat gttgtcatgg  180
agcaccatca accggggtaa attttttgtc ccatttgagg caggtttggg atatgcttct  240
caciaaccag agcttctcac aaaaagcccg atggtttcgg tagggaaggt ttcacctttc  300
tggaacgaaac gatatccatt gcctcttctc gatttcaatt ttttcctaata gtcaacatag  360
aacaacatga gtgttggtgc aatttttgtg atttttgggg gttcgcttgg acatttt    417
```

<210>       4716

<211>       382

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB103-063-Q1-E1-E3

<400> 4716

ggtcgaccgg ccaagaggaa gcagncaatg tgcttagaaa aattgcatac atcagtacat 60  
gacagttag taaaactgaa aaaagataac agaggaagac agatgttgta gtaaggtgcc 120  
caaccaacca aaaggcacca aaagaccttt taattttttg caaaaaggca ccaaaggaat 180  
tattacagga gaaaccatgg aatatagacc aaatgttata cctaaccaaa ccaaatggta 240  
aaagccccag gatgtgtacg ggtaatgaaa tcaagggccc tcaatgcaat tatcaccatc 300  
ccaatatggc accactgtat tcaagccaaa ggtgagttga aaatacaaaa agggaattcc 360  
aaaaaaaaaa aaattaattt tt 382

<210> 4717

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-E5

<400> 4717

ccgggccgac ggggtatttga atttcatatg atactccac tattccgaat gagaagaatt 60  
ttccttatgt ggagagtaat aaaatttcta tgcttgtaga tcatgaaaac aatgctttat 120  
gtgatggta tattgttgaa ttcattcatg atgctactga aaattattat gagggaggaa 180  
tatatgcttg taggagttgc aataatatca agtttcctct ctacatgttg aaaatcttga 240  
agtgttgctt gctttacctc ctatgcaagt tgattcttgt tcacataagt tgtttgcctca 300  
caaaatccct attcatagga agtggggttag acttaaagt gctagtcata ttcttcatga 360  
tgctctcttt at 372

<210> 4718

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-E6

<400> 4718

acggggagat tgaataagt gtggatgccg ccaacagcac gaaggtgaat aataagacca 60  
agggtaggag catacccatc aaacggggcca agatgaagga acaagaggtc ctgagagcca 120

ataggcctct actggaccag tacaatgaaa tcggtgggca tcccgacaag agacagcggg 180  
tctgcgacaa tgccgagctg ccaaaggccc tgcagcgggt tgccaagaac aagcaatcat 240  
gatcttggtt atctagcagt ttgtgctgta ctatcatcta tcatgtatct ggcaggtagt 300  
atttgagtcc atgtggacat gccacatgag acatcgggtg gaaaggatgc aacaaatttt 360  
tgtctcgaaa taacttgatg ttctagttga tatttagctc ataaatcaac atg 413

<210> 4719

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-E7

<400> 4719

gggccgacgg gcgaagttac tgacttgcca ttatagttga cctgaagctc cgttgttttag 60  
gaccattgct gctgctgtag gttagggaga aggctcgagg cagccaagaa ttccgtcctg 120  
cactacttca acaccgacct attctagcat gaatcttctg ccgtgaggat ttgatgcagc 180  
aagggccatt tgtttgacag aaacagagtg gttaccgcaa gagaggtaca aatcaaggac 240  
cgaggaggga cgaggcggc tttgatctaa gttgggtcac tttctatgaa tagatgatgt 300  
gattgctttg ttattttgtt taattaatag aaaaattgat gag 343

<210> 4720

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-E9

<400> 4720

gacggggata gggagcaggc aagtttacag caagctgttg atcgggggtg gcctgcatct 60  
ctacacctga taggaaagga catattgcgg tttcatgcaa tttattggcc aacaatgtta 120  
atgtcagcag ggataagcgt tcctgatgca gtttttggcc atggaatctt gacagaggat 180  
ggcatgattc tgggaaactc attaagcaac atacttgta catatgatct ggtaggcaaa 240  
tttgatccgg atgcgattca ggactacttc ctgcaagcat cataccatgt gaatgatggg 300  
gacgattcaa aacaattttg catccatata gtcaatgcac atctttgctc cacaattgga 360

aaccttctga atcgattact tggactccta ca

392

<210> 4721

<211> 171

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-F1

<400> 4721

gtcgaccggc tgtcccaaca gattccaagc caggaggagg tggtccttgg aggcaccgca 60

aggcgacctc ccggactcca ggcgcaaagg ggataaaacc cccaagggtc ccgagtccgg 120

ccttgacccg gaaaccttgc cggaacctca aagggtcccg gatccaatta g 171

<210> 4722

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-F12

<400> 4722

gggccgacgg gctcaaggac cttgatgccc ctgagatgaa tgtgggcagc ttggatgac 60

atgtcgagat agacatcaac agtgacgacg acgacctgga gtacacgatg aacaagatgt 120

ctataacccc gcaccactct ttcttacacc agatggccat ggacagcgac ggcggcctca 180

gcatgccagc gaggatcaga ccatcgacaa gccctccgtc gcggtgggcc atgtcaggag 240

aatcaccata gatggaagaa acagctggat acttgggggt gtacaaggag ggtatgactg 300

tcaaactgat acggggagct tagttttag tggggtcaaa gaaccattc atttgcagtg 360

tattcagccc aagta 375

<210> 4723

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-F2

<400> 4723

gtcgaccggg cgaagtattg gaccttattg ggccatacgg gaatagagga gagaggccaa 60

aaggaaggag gcgcgcaccc cccctctggt ccgaattgga caaggggtgc agcccccttt 120  
 tccttctccc tctccccctc ctctcttctc tctactcaa acaaggaaag gaggagtctt 180  
 actcccgggtg ggattaggac tcccccttg gcgtgccctc ctcttggtc ggccgcctcc 240  
 ccccttgctc ctttatatac gggggcaagg gagcacccca tagacacaac aattgatcat 300  
 tgatctctta accgtgtgcg gtgccccctt ccgcatatt acacctgat aatatcgtaa 360  
 cgggtgcttaa gcgaaaaccc tg 382

<210> 4724  
 <211> 482  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-F6  
 <400> 4724

ccggctcgac gggggaggag tgtaaaaaga tcgcggaagg aatcgccgga aaagtttctc 60  
 tcctgaaggg ggctgatttg gggcaagggc aataaggtca ttttaagtat gtcaaaccat 120  
 agtgaaaatg ttaccaatat ttagggcttg atgagacgaa gaagtgggct ttggattcac 180  
 cttaaaccga gttgcgcgca agaagttgtg atagtttttc tgccaggac ctatctgtga 240  
 aatgttttct gcaaacaagc ccctgactga gaaaactgaa aacgcattcg ggaataatac 300  
 gctttctgcg taagaaaaca tactttctgc cgtagtacat caaaaatatg cttttcagt 360  
 aggaaaacac atttgttcct gaagaacaac tgaaatgcgc ttttaggagg gagagacgta 420  
 tcttacggag tacgcttcca cttaaagac gtggcagtg cggggccgct tcctgtctgg 480  
 ct 482

<210> 4725  
 <211> 198  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-F7  
 <400> 4725

gttatcataa tgaaacgctc tacgaatgtc acattgccat tgcattgatca tgtagtgtga 60  
 catcatattt gtggcaaagc caccaggctt aatttttcat acatgtcact cttgattcat 120

tgcacatccc agtacatcgc tggaggggatt catatacatt catatcatgt tctagttccg 180  
agttgtcatt cacgagtt 198

<210> 4726  
<211> 482  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-F8

<400> 4726

ggctggacgg gactaatcaa taaaagattc ttcacaaaca ggcccctggc tagaaaaaca 60  
aaaaacacat tatctgagaa tacgctttca gaactgagaa atcatatddd gggctgaagt 120  
gtaaagaaaa tacgctttct ccaaagact acgtatttga ccaaaaaacca tcttgatctt 180  
ggcaatctcc agcaagcctt ggccagtagg gacgctacca ctgtctgtgc ataagtgagg 240  
gtataaaata cccatgtttt gtacactgac aggagcccca tacacattgt cgaagcatcg 300  
ttgggctagg cccaacaat gacacaaatg tggcaggaaa ctaatgttgc aattttagtc 360  
atgatgattt ttctgacgca cgtccagtc actcattaaa tgtgggtcgt tggaacttgg 420  
actattgtgg ttattccacg gtagtgcgcc tgtaaaagag cttgccgagg taagtgatac 480  
at 482

<210> 4727  
<211> 89  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G1

<400> 4727

ggtcgaccgg cgcttgacac ggaatacaag cgaatgggta aggatccac acagggcatt 60  
tcttgacatg ctctagcac accttgggc 89

<210> 4728  
<211> 405  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G2

<400> 4728

gtcgaccggg cgcacggtgg aagatatgtt ttatagaaac tattgatatc tcatgcttca 60  
cttagattat tttgaaagtc cttaaaagca tggtaatttg cttaaagtct aaaaaggctt 120  
ggaaaataag attaataata aaactttctt atgagtgtgt tgaatactat gataagtttg 180  
atacttgata attgttttga gatataaaga tggatgattt aaagttgtgc tagttgagta 240  
gttgtgaatt tgagaaatac ttgtgttgaa gtttgtgatt cccgtagcat gcacgtatgg 300  
tgaaccgtta tgtgatgaag tcagagcatg ctttattttt tgattgcctt ccttatgagt 360  
ggcggtcggg gacgagcgat ggtcttttcc taccaatcta tcccc 405

<210> 4729

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G4

<400> 4729

ccggctcgac ggaacccaaa gcgaagaagc gggcgccggc gaccaaggag gccggcgggc 60  
aggggaagac gaggggcacg aagaaggcca gcaaggccaa gaagggcgtg gagacgtaca 120  
agatctacat cttcaagggt ctcaagcagg tgcaccgga catcggcatc tcctccaagg 180  
ccatgtccat catgaactcc ttoatcaacg acatc 215

<210> 4730

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G5

<400> 4730

cgggtcgacg ggatatccgc attagatcgg tgtgcaaaat atagctgtta catctgaaca 60  
gagaactgtg ctatccatta tgcctataat caaatattag ttcttatgta gttccatcac 120  
atcatataca ccaggtttct caagctctac agttagtgtt ttatgaaaga ttgccagtga 180  
cactaagggtc agggatttga ggtccctgca gacatctact cgatctactt caagtttcga 240  
ttgtacacat tcgttgagtc attcatcgga attatcatgc tcttctctaa tatcactacg 300

atctaccata tcttctaaga ctactocaga actgttttagc actgagactg aata

354

<210> 4731

<211> 476

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G6

<400> 4731

ggctagccac cgagtcctac catccgcccc tcgctgccgc tgcgtctcgc ctccaccacc 60  
ccacttgccc ccggactcag gaggatcgtc ggagatgtcg gacaccgatg agcaccactt 120  
cgagtccaag gccgactccg gcgcctccaa gacctaccgc cagcaggctg gcgccatccg 180  
caagggtgga cacatcgta tcaaggcccc tccctgcaag gttgttgagg tctccacctc 240  
caagactggg aagcatggtc acgcaaagtg tcaacttgtt gccattgaca tctttaatgg 300  
aaagaagctt gaggatatcg ttccttcctc ccacaactgt gacgtcccc atgttgaccg 360  
ccaagattat cagctgattg acataactga tgatggatat gtcagccttc tcaactgagag 420  
tggtaacact aaggatgacc tgaagcttcc cactgatgat gttctgcttg gccaga 476

<210> 4732

<211> 486

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-G7

<400> 4732

gggccgacgg gcacttacta tttacaatga gatgcaggct accgaggtga acccgaatga 60  
cgtaaccatg gtcagtgtgc tctctgcctg tgctgtcctg ggtgcacttg agatgggcaa 120  
gtgggtgcat tcatacataa ggagaaaggg cttgcccctt acagttgttc tcggcactgc 180  
gctggtggac ttctatgcaa agtgtggatg cattgaagat gcagtcaagg catttgagtc 240  
gatgcctgtg aggaattctt ggacgtggac agccttgata aagggcatgg caagcaacgg 300  
aagaggcaga gaagcgtgg agctcttctc ttccatgcgg gaggccaata ttgagcctac 360  
agatgtcaca ttcatgttg ttctcctagc ttgcagccac aactgcttag ttgaggaagg 420  
tcgccggcat tttgatagta tgaccagga ttatggcatc catccaagga ttgagcacta 480



tggtctg

486

<210> 4733  
<211> 480  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-G8  
  
<400> 4733

gcctcaaaag acgaagccaa gccagggaaa gagggatatct catccacacc aggatatttt 60  
gagcccatcc ccgtttcaga aaccggttcc tcgtcgtcgc acgaagaagc cggacgaaac 120  
ccgctcgaag agaaacgagg accgtaccgc taagaggagc aggagcaagt gaccactcgt 180  
gttggtgatg tcgttttagtg caactagttg tgagcaagaa cttgtatgct atgctagtga 240  
tgtctatttg gtactttcaa gctttgttgg tgatgtcgaa ttgctacttt caaactatgt 300  
tcaaattatt tgaaatgtta atttgctatc tacaatgtat gcgatcatcc tattttgaat 360  
tacaaacaat atttgttggt atgttttttt ttgattgat aagaccaaga accaatttag 420  
aagttaactg gcacataccc tactgccgga cggcacggag gtaggtgtag acagcctacc 480

<210> 4734  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-G9  
  
<400> 4734

attcgcggtg cgacttaatt ttgaatcaca acgttgataa acacatagta agtattcttg 60  
atgctggtaa accggaattg agatcttcat ctcatattc gggttacata aaccagaagc 120  
atacttgaag gcttgtaagt atgcaatcat ggttacatca aagacataat tgagggccag 180  
tctttagtga ctttggttca tattccgggt tatatatata aggtctatga ttcccgggtgc 240  
ggtaagccgc ctagaggctt gtgacttggt ttctatgcag gatgggttaa gacagctatt 300  
cgagcttaag gaaaataact aatcaattat aaccggagg aataagaaga agaagcttca 360  
atggagttaa gcattcaaca cgtgcacgac ggcacgaaaa aattaagtgt ttatcctact 420  
gtattacaag actccctgag tccaa 445

<210> 4735  
 <211> 320  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-H1  
  
 <400> 4735

```

ggtcggaaat aaagggtcga ccggaccctg atgcgcaact aattaacaac ccaacttaag   60
ggcccaactg cacattttta gttatccaag ctcgttctgc ggaaggatat aaagaaccat  120
gggaacccta caagtcataa cccaaatttg gtgttgaaca attttacaac gtgccttggg   180
aatcctgttg ggaggatgat acaatctctt ttccctcaag acccaaattt ccgtaggcgc   240
caatttgtaa cttcaacat tcagcgagac tataaatttt tccgtcatca aaggtaaccc   300
tttgaggaaa aagaaaagaa                                     320
  
```

<210> 4736  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-H10  
  
 <400> 4736

```

cggggcacat aattgatggt tcggtagtgc tactcgtagc gtgcatgcat gctggttctg   60
tgggcgctat acgccgcgcg tacgtacgtt tggagaactc gatttgtttg ttgtgtttgt  120
cgcttaatta cgtcgtagg tccatctctg tcggtcggtc gtgttaagtt cttggttatc   180
tgtagtagtg gtgcatgttc ttgaggcata tgaataatgc tagatgtacg tgtcagcttg   240
tgccgtggta tgcaatgatg aaatgaatga agtattattg taacataacc aacataaccc   300
aaaatacatc atagaaaata gaccataaca gtaataaaaa aaatcagaca aataagttta   360
tagacagaca gaaaaaaaaa aacaggccgc ataaaaaaaa gcgggccccc ca          412
  
```

<210> 4737  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB103-063-Q1-E1-H12

<400> 4737

catggctctc gaaaaagtga aaaacgtttt tttttcatcc acaagaggca tagatttagg 60  
 ccccgtttg attctctcct actcccagct tctttgtttc agcgcatgga gttgtcctga 120  
 acgcgacatc tcctagaagc cagcttcgcg gagcaaaca cccctgtagt gcaaaaacga 180  
 gaggcaggtc gaatgcaact tcaaaaatcg aaagaggcgg agttggacgt aattacttga 240  
 tatgccactg ccaagtgact ctagggcacc gtaccggttc aatcaatgtg tttatctccc 300  
 cgatacattc tctcccatac gagaaaccac tctaattggc ttcattgcttg cttactgggc 360  
 tgccggccga cgcagacgag agcaggagca gccgcccgtg ccgaacgcat cactagctcc 420  
 aacaa 425

<210> 4738

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-H3

<400> 4738

ggtcgaccgg actgcggtatg acaatcgatg ttggttcacg tgtgggggaa gcgcatggaa 60  
 atccggttgt tcgacgtttg tgattgatgt caatattctt aaaagggaac tcttgggttg 120  
 catatggaat agttgtcatg tctttctcgg actattcttt tgcttgataa gggatctgtc 180  
 cgaattcagc tgactgtcta aaaattgcac tggtttatca catattaatg tcgatcttta 240  
 ccaaaatatt agtccttaga agttaagggg gagttttcgg tgaaacattg tggaaagtcc 300  
 gatttgatta tatggctgag actgttcagg gttgtggcca ctcaagataa ctcacacctg 360  
 tgcaatgcca tccccgtaat ggacagagct ttgggggaat aattcggaat tc 412

<210> 4739

<211> 147

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB103-063-Q1-E1-H4

<400> 4739

tgaaaaatgg aaattcgctg gtttaagccc ccatgcaaca attgctgggg tgttcgggat 60

aaactcaacc gctcttggtc ccatttttgg gtcaagctag ggaggcgctc gacacagcga 120  
acaaggcaac cggacttata atgcttg 147

<210> 4740  
<211> 491  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-H5  
  
<400> 4740

ccgggtcgac gggtccttca aggtaacata ccacgcccgt ggggcctgct tgaggccata 60  
gagggccttg ttgagtctga agactttgtc aggattcttt ggatcttcaa aacctggggg 120  
ttgagcaaca tatacttctt cctcaagctt accattgagg aatgcacttt tcacatccat 180  
ttgatataaa gtgatatcat gatggttagt ataagcaagt aatatgcgaa tagcctcaag 240  
tctagcaaca ggtgcaaaag tttcatcgaa atcaattcct tcaacctgtg tgtagccttg 300  
agctacaagc catgccttat tcctcaccac aaggccgttt tcatattgct tgttgcggtg 360  
gaatcaactt tgtgccaatg atattgtgct tgagaagatc tggacgtttg accagttccc 420  
agacattggt gagctcaaac tgatgtaatt cttcttgcac ggctgaatc cactcaagct 480  
ccagaaatgc t 491

<210> 4741  
<211> 467  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB103-063-Q1-E1-H6  
  
<400> 4741

ttaagatgtc tgacgctggt tagagattaa tcatgtgttc cgtaagtgtt agtttgtagt 60  
ttctactact attttctcgc ggttgatgag agagactcgg aagtgaattt gtataccgga 120  
agatttttgt cagccgtgca actcgttgcg cctcttgata gaaaaagtag aaattttgtc 180  
aaagtcattc tatatgctta gcagcagaga tgatgtacga taccattaaa aacccttctg 240  
aatgtttgtt gatgctgtgt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360

aaaaaaaaa aaaaaaaaaa aaagggccgc ccaaaggggtt caaagttaa aaaaaacggg 420  
 ggggccccta aaggggtccc ctaaagggtt cccgaaattc aattcaa 467

<210> 4742  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-H7  
 <400> 4742

accggtcagg tcagtcggg tcgaccgat ccagtaacgtc ggcgcgaga ggctgctgat 60  
 tctcctcgct ctctgtattg aacctgtaa caacggcgca attatcttca ctgaatacca 120  
 ccatgaaatt atcaagcaat ttggcataat catatccgat actgttcttg ataacaaga 180  
 cgcagggtct gatgacgatc atgacgatga tgaagatgag gatgatgaaa ctggtgatgc 240  
 tcatgatgat gatgccgatg ctggagagga cttctcgggt gaacactgag atgacgatga 300  
 cgaggatgat gaccctgacg ctaactgtga tgatgctgga gcggggagcc atgatgatga 360  
 tggtgactac 370

<210> 4743  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB103-063-Q1-E1-H8  
 <400> 4743

ggggacgagc gatgggtcttt tcctaccaat ctatccccct aggagcatgc gcgtaatact 60  
 ttgctttgat aacttctaga tttttgcaat aagtatatga gttctttatg actaatgttg 120  
 agtccatgga ttatacgcac tctcaccctt ccacctttgc tagcctctct aataccgcgc 180  
 acttttcgcc ggtatcatat acctaccata taccttcttc aaaacagcca ccatacctac 240  
 ctattatagc atttccatag ccattccgag atatattgcc atgcaacttt ccaccatcta 300  
 gttcatcatg acacattcat cattgtcata ttgcttagca tgatcatgta gttgacataa 360  
 gtatttgtgg caaagccacc gttcataatt tcttcatact tgtcactctt gattcattgc 420  
 atatcccggt acaacgccgg aggcattcat at 452

<210> 4744  
 <211> 375  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-001-Q1-E1-A11  
  
 <400> 4744

```

tccccgggtca acgggggacga ccacgtggat gtggaaaagt cggatagaaa gctcttagat   60
gatgaaaaga aacccgatat cacgaaacga ccacacactc ctattggaga tgaggtggaa  120
tgcaagaagc caaagatagc agaaggctca aggtgccaaag gagaagaacc tgaggctgga  180
gggataaaga attcctcctg ggtctgatga caggggaatg cagtaaacac cagaagcatc  240
aaaactatga tctggaacag tctcctgaat aaactatddd ctggattatg aatgaattct  300
gaagcatggg gctataagtg aattatgtaa catggatttg taactatggt ggatgttaag  360
ttaacgttct atcag                                     375
  
```

<210> 4745  
 <211> 312  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E1-A9  
  
 <400> 4745

```

taccggtccg acattncgg gtcgacgggc gggcatgcat gcgccatccc gccggtcggc   60
caataaatca gggagcgddd gggcggccta cagtgcgtac gtttcggata ttgatttctt  120
cgtggagtct agtggttcgtg cgtgtgtggt tggcggtagt tgtttggttt tgtagtggtg  180
agtgcgctcg gggcggcgtg tactcctgtg tgtgtgtcaa gtgttgccac ctgcgattcc  240
attttcattc cgtgcgatga ataaattaag aaggggtctt ctggacgcgt ctagcgggcg  300
cacggccgcc ta                                     312
  
```

<210> 4746  
 <211> 428  
 <212> DNA  
 <213> *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB104-001-Q1-E1-D10

<400> 4746

cggtcctaaa ttcncgggtc aacgacgacc cctactacac tggagggtgcc tactactacg 60  
tgctgcccgc tgatgacgac ctggagtagt ttaggaggat cccaggcagg aggcctgcgc 120  
ctctttcgat ctgtatccca gtttgtgcta gccttcttaa ggcaaacttg ttttaacttat 180  
gtctgtactc agatattggt gcttccgctg actcgtctat gatcgagcac ttgtattcga 240  
gccctcgagg cccctggcct gtattatgat gcttgtatga cttatttatg ttttagagtt 300  
gtgttgtgat atcttcccggt gagtcctga tcttgatcgt acacgtttgc gtgcctgatt 360  
agtgtacgat tgaatcgggg gcgtcacaag ttggtatcag agccgactgc ctgtaggaat 420  
cccccttc 428

<210> 4747  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E1-E10

<400> 4747

acgcctgcag tatcggtccg agacttcccg ggtcgacggg gttaatccta agtaggaggt 60  
ttgttcaagt aagaacagta gctaagcacc ggtccacca catatcaaat tatcaacgta 120  
gcgaacacaa atcatatcaa catgatgaaa gtgactggat gaaatgcccg tgtaccctca 180  
agaacgcttt gcgtaatgta agagatcgtt ttggcctgtc ccttgctca aaaggattgg 240  
gctaccttgc tgcacgtctg ttacgagtaa cagtacgtgc tcgtgacaaa atatcttgct 300  
atcgaaccac gatgttaccg acaacttcag cacttgcata cattcccttg ctgaagacca 360  
cgtgtcacta ccgtttgctc ctactgggt tccacactc 399

<210> 4748  
<211> 454  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E1-F10

<400> 4748

ggtcccaaatt tcccgggtag acgggagggg ttgttttctt ctctaagtcc tttttcctca 60  
 taacatatgc ccttggtcag cgcacgttaa ctttgacccc gtagctccgt tttgggctg 120  
 tagcatatca aattgttcat ctggatatgc acttcatttc attccattgt accatattca 180  
 tttgaggtca tcttgatgcc ctaaagtctg ttgcaagagt gctatgtaat gttagtttca 240  
 gattcttacc agattatcga catttggtcat ttttgccatg tttaatgatg aggacatgac 300  
 taccttggat atgacaaaaa atattgcata tatgcatatt tgtcaggtga tttctagtgc 360  
 aaactattca ataatttatt tatgttatcc agaacaaaaa tacttcacac acttttgtgt 420  
 tttgtctaatt tgcaggtgta tgggacattt gtac 454

<210> 4749  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E1-F11  
 <400> 4749

acgcctgcct gttccgggtcg gcaattcncg ggtcaacggg acgggtcgta ttcttctcta 60  
 aatccatttt cctcataaca gatgcccttg ttcaccgcat cgtaacattg caccggtcgc 120  
 tccgtgttgg gcgtgtagca taccaaattg ttcactctga gatgcacggc agttcgggtcc 180  
 attgtaccag attcatttga gggtcagcttg atgtcctaga tgctgttcca agagtgttac 240  
 gtggcgtcat tttcatattc ttaccagagt aacgacatat tgtcacttct gccatgttta 300  
 ctgacgatga catgacgaac ttggatataa tcacacatag ggcatatcat catatttgcc 360  
 acgtgatttc tagtgacacac tatt 384

<210> 4750  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E1-F9  
 <400> 4750

acgcctgccg gtatcgggtcc gaaattcccg ggtcaacggg tacttgacta ttgttatgat 60



aattatgctt ctaatgccta tgttaaacca tatattgaga aattcaacgc tgacgaagaa 120  
gagactaata ttttgcagga cgctatggaa gaagaaattg atgagactgt gagctcattg 180  
gatgaaagag atgatgagga gagcgaagaa caatggatga agagcggatt agctaccctg 240  
gtccaccttc taatgagagt aaccctccaa ctcatatatt atttaattcc ccttcgttct 300  
taccgaagga tgattgcat gatgattgct atgatccctt gaatttggtt gaaatatccc 360  
tttttgatga tgctttctat gcatgtggcc atgatgcaa tatagattat gcttatggac 420  
atgaacttgc tataatcctt aggtgaaaca tgaaattggt gc 462

<210> 4751  
<211> 314  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E1-G10  
<400> 4751

tggtacgcct gcagtatcgg tccgagattc ccgggtcaac ggggtctaca gcaacggcgg 60  
tgttgttctc ccacacaagg agatcaagtc aagcatcctg aagcctgaga tcgtcatgtg 120  
agctcacgcg tcacaaatgc ttttaggaac gatgttggtt ggcgtctttg ttctagtga 180  
tactgtaaac agcttaatat atgtggaact tgcgagactt gttaaactga tgagagtgt 240  
tgtgcaaaaa aaaaaataa tttaaaaata tactatgaat aaaaagtacc tcaaagggtat 300  
ctaaaaaaga acaa 314

<210> 4752  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-001-Q1-E1-G11  
<400> 4752

acgcctgccc gtatccggtc cgcagattcn cgggtcgacg ggacgtatag tattctgcga 60  
gtcctaaaca acatggaaat ttgctttggt tatgaattta atcctaatat gatgggcatc 120  
catcagggat atactagtaa ctttcatatg aagtgcactg aatactaaga gaagtttgat 180  
acatgataat tgttttgaga gatgacgatg gtcagtggcg gagccaactc aagtttagag 240

ccggggcaag atctacatgc tgccaaatta cttactttct acccaaaca acgtccactt 300  
 cacccaattt tctctactaa agcttcatgg acttgcacca agggaacccg ggcaagtgcc 360  
 ccagcgtgcc aagttctgtc accgccactg aagatgggtga tattaataatt gtgctagttt 420  
 agtagttgtg aatttgagaa at 442

<210> 4753  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E1-G12  
 <400> 4753

cgctgccgg tatcggtcgg aaattcccgg gtcaacggga cttatattat tttgagagtc 60  
 ctaaacaaca tggtaatattg ctttggttat gaatttagtc ctaatatgat gggcatccaa 120  
 gagggatata ataaaaactt tcatatgaag tgcattgaat actaagagaa gtttgatact 180  
 tgataattgt tttgagatat gaagatggtc agtggcggag ccaactcaag tttagagccg 240  
 gggcaagatc taagtgtctgc caaattactt agtttctacc caaacaact tccacttcac 300  
 ccaattttct ctactagagc ttcattggact tgcaccaagg gagccccggc aagtgcccc 360  
 gctcgccagg tgctgtcacc gccactgaag atggtgatat taaagttgtg ctagttgagt 420  
 aattgtgaat ttgagaaata cctgtggtaa agtttgtg 458

<210> 4754  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E1-H11  
 <400> 4754

cgctgcang tatcggtccg aaattcncgg gtgcagggg agattcactt aatgacgagc 60  
 tgaggaaaaa ggagaataat cgtttgattt tggccaaaca tacctctctt ttgaagaaca 120  
 tgaagagaaa actcattttg gcgaaaacaa aggttgcaaa agcagagatg gctttggcga 180  
 aagttcagga atatctctct ccagcagagc ttccaacgga tctggaaact gttacagagc 240

aggagcgttt cctattccgc agaattggcc tgaaaatgaa ggcctttttg atgcttggca 300  
ggcggaagt ttttgatggt actgtgcaaa acatgcactt ccattggaag catcgagaat 360  
tggtcaaaat tgttgtgaag gggaagacct ttgaacaagt taaacatatt gctatctctc 420  
tagaagctga gagtggaggc gtgctcattg cactcgacaa gacaacaaa 469

<210> 4755  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E1-H9  
<400> 4755

acgcctgccg gtatcgggcc gaaattcccg ggtcaacggg gcggcaactg ttgcagccac 60  
aatgttccca ccatttgcta gccagacaca gctaaatgcc agagctagct agcgcataat 120  
agtgcactag tagtagtaca cttgtatcat cttcagcaaa ctactcccta ttccaagaa 180  
attgcacgta tagggagagt tgaggcaaaa aacctgcttc agcagtctcc ctaaacccaa 240  
aaaattatct cctcaaatag tggagagttg caaccctccc cataaatttt caatgcttgc 300  
catgtcagtg cgccgcctcc attgaccgcc gcgccactgg accactgccg cctgctggaa 360  
caccaccgct gccgcgggac ttctgtgctg ccgttgctgg aaatccgcgc cgccgccacc 420  
tgccaccgca accttgacga aaagatgcaa atgagagaga tg 462

<210> 4756  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-A1  
<400> 4756

cgctgcccg taccgggtcca gaattcccg gtcgacgggg agatttcttg gagggattcc 60  
cagatcaatt caactagcag cgtcatcgtc aaggagtacc ttctcaatgt cacttctggt 120  
aaactgggca ttgagttcac ccccgatgaa ggatccttcg ccttcatcaa tgccatggag 180  
gttctacctg tgtctggcac ctcaattttt gattcagtc acaagggtgga cggtcatggg 240  
ttgaaaggcc cttttagcct ctacggcatc gggatcgaga ccatgtacag gctgtgtgtg 300

ggattcatcg atgtactggc taggaaagat gatccaggat tgtggaggag gtgggataaa 360  
gatgaccatt 370

<210> 4757  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-A4  
  
<400> 4757

cggtccgaaa tcccgggtcg acgggggaaa aaacaatgtt gctttcctct gtctctttat 60  
gcttggtaaa ttggaagatt gcatacaatt gctttagac agcaaccgta tacctgaagc 120  
tgcattaatg gcgcgttctt atcttccag caaagtttca gagatttag caatttggag 180  
aaaagacctc agcaaagtta atccaaaagc tgcagattct ctggcagatc ctgctgagta 240  
tccaaattta tttgaagact ggcaggttgc acttactgta gagcagaatg ttgcttccca 300  
gaggggccac tatccttctg cagatgagta cttgaaccat gctgagaagt cagacactac 360  
tcttgtggaa gctttcaaaa ggatgcgggt cattgaagaa gaggaaccag tggaagcact 420  
ggatgaaaa 429

<210> 4758  
<211> 324  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-A5  
  
<400> 4758

aattcccggtg tcgacgggtg actggagctg gtagcgggcc actgcctcat caaggggggc 60  
gacgacggcg atgtctcaca catgcttaca gacagcaacc gtgggacgta gactaccggc 120  
ctcagccttc acgacacca catccgactt acaaagactg gctgagctag gagctcccaa 180  
cacacactca atacgcccgg gtctgcagat tctcaggcag atcgagcaga gtaccccagt 240  
aacgtgtgtg actggcaagt tccccttacg ctgtagcatc tgctgacatc ctacaggggc 300  
agaccatcct tgcgcagatg agta 324

<210> 4759

<211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E2-A6  
  
 <400> 4759

taccggtaca gaattcccg gtcgacggg ggactacgca cacaactagg agcaggagaa 60  
 ttaaaccata acttagcatc accctttaac gagaaaggaa acaacttaag aatcaagtaa 120  
 tagcgaattt tttccacatg agcaaataagg gtggctatat catccaattt agtaagatgt 180  
 gccacaacag tttcagattc ataaccatag aaaggatcag attcaaccaa agtaatcaac 240  
 ttaggatcga cagagaattc ataatcctta tcagtaacaa agataggtga agtagaaaac 300  
 ttaggatcat accgcattct agcattcaaa gacttttctt tcagcttagc taaccgtttc 360  
 ttaagatcat ctctatcatt acaagcanna gagtctctag cagtttcttc atccataata 420  
 taa 423

<210> 4760  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-A7  
  
 <400> 4760

gtaccggacc agaattcccg gtcgacggg cagcagaagc tcagaccata tatatgatca 60  
 ggggtgtaga aaacgggtgt agggttgcag atcagcaacg caagctgcaa tccgcaagct 120  
 gcagtggcag cgtccgaaag agatgcgcgg aatgtacata agtagtgcg ggcggtggaa 180  
 cttttgtctg aagagatgat tttttcgtat gtaattgcag gatttgactc tcaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagaa gaacaaaaag 300  
 aataaagcta aaaataaaaaa tccataagac atcaaaaaaac ttcaaaaaaat gtcgccaaaa 360  
 ttcacataag ggagccatca aataacgggg ccccccaagg ggaaaaacct tgcgttacct 420  
 aag 423

<210> 4761  
 <211> 406

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-A8  
 <400> 4761  
 gtaccggaac agaattcccg ggtcgacggg gaggagctga acaaggtgct ggtggccatg 60  
 aacgagcgca agcacatcga cccgctgctg gagtgcctca aggagtggaa cggcgagccc 120  
 ctgccgctct gctgagcagc cgacgagcca aggtaacacc aaaggaaaag aaaacacgta 180  
 cacacaaagt gaatatagaa gtggttcaag actgtgaagc gggaggttcc tggatatatct 240  
 acgtttcatt gtacttagtt aagttgatac tactgttggt ttttctcgct gccgccatgc 300  
 catgagcagg cgaggcaggc agcttctcaa acttgtgttg ttgtaacttg tatgatggga 360  
 gcttaagtac attactttgt ttcataatac accgtgttat cgccat 406

<210> 4762  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-A9  
 <400> 4762  
 tcccgggtcg acgggcggcc atgcatgcgc catcccgccg gccggccaat aaatcagggg 60  
 gcgtttgggt ggcctacagt gcgtacgttt cggatattga tttcttcgtg gagtctagt 120  
 ttcgtgcgtg tgtggttgggt ggtagttggt tggttttggt agtgtgagtg cgtcgtgggt 180  
 gccgtgtact cctgtgtgtg tgtcaagtgt tgccacctgc gattccattt tcattccgtg 240  
 cgatgaataa attaagaagg ggtcttcttg acgcgtctag cgggcgcacg gccgcctagg 300  
 atgcttagcg agcggcccg cacttcagat aatttcttgt ctctcctttt aactagaata 360  
 gtcacttagt agtccctttt tc 382

<210> 4763  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E2-B4

<400> 4763

tcctgcgga cggcgagaa ttncgggtc gacgggtacg cactctctcc cttccaccat 60

tgctagcctc tcctgtgcc cgcaacttcg ccggtaccat acacctacca tataccttcc 120

tgaaaatagc caccatacct acctattatg gcatttccat ggccattctg agatatattg 180

ccatgcaact ttccaccgtt ccgtttatat gacacacatt acttttgtca tattgctttt 240

tgcatgatca tgtagttcac atcgtatttg tggcaaggcc accatcataa ttttcataca 300

tgtcgctctt gattcattgc atatcatggt acacccccgg aggtattcat agagagtcac 360

atcttgttct agttttgagt tgtaaataca tagaagtgtg atgattttca ttattagagc 420

attgtcctag tgaggaaagg atgatggaga ctatgattcc cccac 465

<210> 4764

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-B5

<400> 4764

gtaccggacc agaattcccg ggtcgacggg tgactgatgc aaactgtgag attagcttta 60

ccgctcccggt ctctgtctac tcttttagtta cttagtacta ctaccggtag tggttatccg 120

tctccatttt ttcaccatca tttttttaat cagaaacata gtactacagt acatgtttgt 180

atgtgtgttt gatttgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaataaaaaa 240

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaacacaa aaagaggaaa aaaaaaaaaa 300

aaaaaaaaaa aaaaaagggg gcccccaaa ggggtcaaac ttaatttacg ctgaaaggca 360

agttaaaacc cctccaaagg ggtcccaaaa ttaaattcca ggggcgttct tttaaaacgt 420

tggaacgggg aaaaccccg ggtttcc 447

<210> 4765

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-B7

<400> 4765

gtaccggacc agaattcccg ggtcgacggg gttccaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 ccaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agcgggcccgc ccaaaggat caaacctaac 180  
 ttacccttgc atgcaacttc aaaccctcc aaaagtgcc ccaaatttca att 233

<210> 4766  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-B8  
 <400> 4766

taccggacca gaattcccg gtcgacggga tagaaagcgt gaagatagg atgtttcatc 60  
 aagcagggtga gatgacatgg atagggacaa aggtaatact atgaaggaag atagtgaccc 120  
 taatagtgc tccaaacggc gaaaaattaa gagagatcag tctgctttag aagctgggga 180  
 atatgcacct tctgctccac agcctccgag ccttgaggct ggtaactcgc aatttgaaat 240  
 acgagagaga gaaagaaagg gtgttatttc acagcatcgg ccgtcacatg ctgatgacct 300  
 ccctaggatg catgccaagg attcaataag caagacaagt cgtagagaga ctgaccaaac 360  
 gcatgataga gaacgggaag aggaaaagag gccaagaact gaagcaagaa gaaagcat 418

<210> 4767  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-C1  
 <400> 4767

ccgggtcgac ggggtcccga aatgaaaaat ggatttactt tatgttgtca aataataaat 60  
 tccttgaaa gtgttgggat ggaaggcacc cgtggatagc attagccatg gaaagtgaag 120  
 gtatatggtg gaaaaaggaa taaactttat tttctgcttg ggaacctcct atgatatac 180  
 tagcatggaa ggtgttggga actctaagtc gttttcgttg gtgggaagga cacacctccc 240  
 aaaatgtttt tatctctaag ttttttgctt tgagctctgg aacctctaca aatccgtact 300  
 tccctctacg aagggccttt ctattacttt gtgaaatttt tattttttaa tttgagtctc 360



catcttctct tataaaagca ccaactttgg aggcactatg atcgtacttg agcatttgtgt 420  
gt 422

<210> 4768  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-001-Q1-E2-C10  
  
<400> 4768

ggctccgaaat atcncgggtc gacggggcca gagatcatca ccaccccgta tgactggcgc 60  
atccacgtcg gcgatggcga gtcggcgccg cgagaccgca gtgagcgcat ctgccaccct 120  
gccgctcctc ctgtagccgg cgtgatgacg acgaagatga ccaccgtcgg gaggaccaag 180  
accgagatcg tcggggccgt gacggctcca ggaacggcag gggctggggg gagaggggtgc 240  
gtcgcagcct ctcccgcgcc ccccgggacg acaaccgcga ccgtggtcga gagcagcaag 300  
gagggtcgtga tggcggtcgg cgatgccatg aggaagtggc cccttcgctg ctgctacgtg 360  
gtcccggtc ctccagcgtg gtggccgcac acgatgcgga gatggtgcca gtgctcctcg 420  
gccgcctgcc cg 432

<210> 4769  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-C5  
  
<400> 4769

gtaccggacc agaattcccg ggtcgacggg tgtatttgat gcggcaataa aggtgggtact 60  
tgcgccacca aaggcgaaga agaagaaaaa ggcgcagagg ggggcttgct ccatcttggt 120  
atctaatacat cggtagacaa agaacaaggc cgaagttgcc gccatgctat attattgtta 180  
cgtcttgctt cagcggagct gcaactctcat ggtcgtcgtc cctccccctt accccaccct 240  
aggttaccba ccggcagctg cagcaaggct tctttgtcga ggcatcgggc gatccatttg 300  
tttgatttct cttcttctct ccttggtgatt atctcgtgtg actgacaagt cgtggcaatt 360  
taggtaactt gcttagtaga cggatatttc cgtgtttgag accccgtaaa aaaaaagtat 420

ctcgttggtta tctcggttcc ataagtagag acatgat

457

<210> 4770  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-C6  
  
<400> 4770

tacggtacga gaattcccgg gtcgacggg catcaaattg atcatagcat ccaattcact 60  
ttctatgata gtttttatta tacgcaactt ggatgctcat cattctagga ccaaatttgt 120  
aaccatagca aataccgtga tggttctaaaa taacctcaaa ataataaag tgaagcatga 180  
gagactagaa atttcttcaa attaagtcac caccgtgctc taaaatatat aagtgaagca 240  
ctagagcaaa aactatcaag ctcaaaagat ataagtgaag cacatagagt attctagcaa 300  
attctaattct agtgggcttc tcccaaaagg tgtgtacagc agggatgatt gtggtaaact 360  
aaaaatgaaa gactaatata atacatgatg ctccaagcaa aacacatatc atgtggtgaa 420  
taaaaatata gtcccaagta aagttaccaa tgaacgaaga cgacagagg 469

<210> 4771  
<211> 316  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-C7  
  
<400> 4771

agtgagtcgt attaagctca ctttctatga tagtgtttat tagacgcaac ttggatgctc 60  
atcattctag gaccaaattt gttagcatag cagataccgt gatgttctgg aatagtctca 120  
gagtgggtata agtgaagcat gagagactat aaatttcttc aaattaagtc accagcgtgc 180  
tctaaaatat ataagtgaag cactagagca cagactatca acgctcacga gatataagtg 240  
aagcgcagag agtatgctag cagattctaa tctagtgggc ttcgcccaga aggtgtgtac 300  
agcagggatg attgtg 316

<210> 4772  
<211> 412

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-D10  
 <400> 4772

```

gggtcgacga cgaccctac tacactggag gtgcctacta ctacgtgctg cccgctgatg   60
acgacctgga gtagtttagg aggatcccag gcaggaggcc tgcgcctctt tcgatctgta  120
tcccagtttg tgctagcctt ctttaaggcaa acttgtttaa cttatgtctg tactcagata  180
ttgttgcttc cgctgactcg tctatgatcg agcacttgta ttcgagccct cgaggcccct  240
ggcttgtatt atgatgcttg tatgacttat ttatgtttta gagttgtgtt gtgatatctt  300
cccgtagagtc cctgatcttg atcgtacacg tttgcgtgcc tgattagtgt acgattgaat  360
ccggggcgtc acaggttggg atcagagccc actgcttgta ggaaccccc tt          412
  
```

<210> 4773  
 <211> 193  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-D4  
 <400> 4773

```

gggtcgaccg gggaggacga caacgacgac aatgaggaat acaagcacia ctacgccttc   60
aacatagatc atcactcttc tataatgaca cccaatactc tatgcagttt gccatcattt  120
taatacgtcc taaatgtgaa tatccctgta cttacacaac attatcttct ttcacacat  180
ttcccatttt tca                                     193
  
```

<210> 4774  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-D5  
 <400> 4774

```

gtaccggacc agaattcccg ggtcgacggg ggagctcgaa gacgcgtaca tgctgtcaag   60
aattgttagc ttgtgattaa cttacagac accgtatatt atgtaaaatg tcctccactc  120
acaccagtc aatttaacca attttctgt gatctattta aagtttgcgg tgagggtccga  180
  
```

cgagcagaga tccggccggc gcgccatttg ttgtaattgt tgatgtaaac aggagttgcc 240  
 ttttgattga gcaaccatcc tgctataagc aacatgtttc tcattcttcc cttctggtgc 300  
 cccccaaccc ggcgggctag cttatagttg ttggcaaagg tgtacacacc aatcaacctc 360  
 ctcacagtta taataagcag gcgcagtttg ccc 393

<210> 4775  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-D7

<400> 4775

gtaccggacc agaattcccg ggtcgacggg cttcttcaac catgagaatg gaaggaacgg 60  
 gatcatcgac ctcttcttcc aggacaggta cctcaatgct atccagacca acgctcccca 120  
 tcttctgagg taccttgctg ctgcagttgt tgtcaacaag aggagaagga acatgcttaa 180  
 ggaactcatc aaggatcatc agcaggagca gaacagctac aaggatccca tcattgagtt 240  
 cctggagtg cctgtatgtca agtatgattt tgatggcgct cagcagaagc tcgtcgagtgc 300  
 cgagcaggtt atactgaatg atcctttcct ggggaagcgc gtcgaagaga ggaatggcat 360  
 tgctgttctc ctgagagacg agttccttga gaatgctcgc ttgttcatct ttgagaccta 420  
 ctgccgtata catcgctgca t 441

<210> 4776  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-D8

<400> 4776

gtaccggtac cagaattccc ggtcgacgg ggttctgttt ttgacagatt ctgctttacg 60  
 tatgttggtt gcctattttg atgcatctat ggctagtatt aagtggtagt aaccatagag 120  
 aacttggagt acagtatggt caacacaaat ataaataaat aatgagttca ttacagtacc 180  
 ttatgtggtg gtttttcttt ctttcactaa cggagcttat gagatttcct gttgagtttt 240  
 gtgttggtgaa gttttcaagt tttgggtaaa gatttgatgg actatggaat aaggagtggc 300

aaaagcctaa gcttggggat gaccatggca cccaagaca ttcaagaata gccaaaatcc 360  
 taatcttggg gatgccccca gaaggcatcc cctctttcgt cttcatttat tggtaactta 420  
 acttgcagct atattttaat tcgccacatc atatgtgttt tgt 463

<210> 4777  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-E5  
 <400> 4777

gtaccggacc agaattcccg ggctcgacgg tgccctggca atactgtgct agtttgctat 60  
 aagggtgctg ctaggttgct actactggtt gactgttcgt gcagttttcc tagagttagc 120  
 tgttcgtgca tcattttttc ctttgtgaat tagctgttcg tgcgtcagtt actcaaaaaa 180  
 aaactgttca tgcattcattg atgattgtgg tgaatcggct gaggtaagat tagctcttcg 240  
 tgcagcttct gcttgttggg gtcgagttct cttttttttt aagtcttatt ttctttttcc 300  
 ttgtatttct ctgttccttc aaaatagaaa tgccgggcat gtcattgcgc atggctgatg 360  
 aacatgcgat agacacatat ataattcattg gcattatgtt tttaaaagca aaaaatctta 420  
 agttgcgcat tgacagtgga cg 442

<210> 4778  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-F5  
 <400> 4778

gtaccggtac gagaattccc gggtcgacgg ggagttccaa cgggtgcccg actgcaacga 60  
 gaacggcctc atcggatgcc ccgtctgctg ctgctgatgc tactgttttt ttccgttaca 120  
 gtctaccgta ggctaaagtt ctctgctgt tttagatgct tctactttgt acaatgtgaa 180  
 gagcatttac agaagactcc taatatatca cggcaagagg ttttgcttac gatcctacag 240  
 taataattat caccctcacg aataagttca gtagtagatc catgatgtca ggttttgttg 300  
 gtgaagactg aatacaacca tagaaatata aactgagtta atactgacgc taataagcat 360

agttgcggcg gcattgcatc gatgatttac gacgtttcac tttttttcca agcatttttc 420  
 atatcgctgt tcac 434

<210> 4779  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-F6  
 <400> 4779

attcccgctg cgacgggact tatataattt tgagagtcct aaacaacatg gtaatttgct 60  
 ttggttatga atttagtcct aatatgatgg gcatccaaga gggatataat aaaaactttc 120  
 atatgaagtg cattgaatac taagagaagt ttgatacttg ataattgttt tgagatatga 180  
 agatggtcag tggcggagcc aactcaagtt tagagccggg gcaagatcta agtgctgcca 240  
 aattacttag tttctacca aataaacttc gacttcaccc aattttctcg actagagctt 300  
 catggacttg caccaaggga gcccgggcaa gtgccccagc tcgccacgtg ctgtcaccgc 360  
 cactgaagat ggtgatc 377

<210> 4780  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-F7  
 <400> 4780

attcccggtg cgacgggaag ttacagaatg aggacggttc atggttcgga tcatggggta 60  
 tttgcttcac atacggcacg tggtttgcta tagagggcct atcggcagtt ggacagtgtt 120  
 acaataatag cacctacatc cggaagggtt gccagtttct attatcaaag cagctaagga 180  
 atggtggatg gggtgagagt catctttcat ccacaaccaa ggcatacacg aacctagacg 240  
 gggagaaatc acatgtagtc aacaccgcat gggcaatgtt ggcactaatg aaagctggac 300  
 aggccgaacg agatccgtct cctttgcacg aagctgcaag acttaccatg agcatgcaac 360  
 ttggcaatgg tgacttccca cacgaggaaa tgattggaag tttcttgaaa aatggtc 417

<210> 4781  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-G5

<400> 4781

taccggacca gaattcccg gtcgacggac ctgctgctat acatactgga ccaattacta 60  
 gagctcgtgc acgccaaacta aattaccagg tactttcgtt tcttggtaat ggttctaagt 120  
 ttcatgagaa tatgatgctg cctaaattgg atacatttgt tttgcttaca aatgaagggc 180  
 ctgagcttga gaaggatgaa cattggagca agaacaagca tggagatgat ggcagtgtga 240  
 aggggaacaa gaacggagtt acaagtgatg atttcaggac tttgaagcca ccataatggg 300  
 tgcataaagc cttggacgaa atatacaaga tgccacttca taaatttcgt tccgaggcta 360  
 ttttaggtgc tgcgtcacct tattattggg ccaggcccat gtaatttcga aatacata 418

<210> 4782  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-G6

<400> 4782

taccggacca gaattcccg gtcgactcct caggagacgg ctcttcgccc tgggggtcttg 60  
 aggggagcag cctgccccga tgtcttgaaa gggtatggga ctggggttgg cctacccttg 120  
 gtccattact ccgacaaata ctaagagaag tttgatactt gatgattgtt ttgagatatg 180  
 aggatggtaa tattagagtc gtgctagttg agtagttgtg aatttgagaa atgcttgtgt 240  
 tgaagtttgc aagtcccgtg gcatgcacgt atggtaaacg ttgtgtaaca aaaatgaaac 300  
 atgaggtggt atttgattgt cctccttatg agtggcggtc ggggacgagc gatggtcttt 360  
 tctaccaat ctatccccct aggagcatgc gcgtagtact ttggtttttg atggattgta 420  
 gatttttgca ataagtatat gag 443

<210> 4783  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-G7

<400> 4783

taccggtacc agaattcccg ggtcgacgga cctgctgcta tacatactgg accaattact 60  
agagctcgtg caccgcaact aaattaccag gtactttcgt ttcttggtta tggttctaata 120  
gttcatgaga atatgatgct gcctaaattg gatacatttg ttttgcttac aaatgaaggg 180  
cctagcttgg agaaggatga acattggagc aagaacaagc atggagatga tggcatgtgc 240  
aaggggaaca agaacggagt tacaagtgat gatttcagga ctttgaagcc accataatgg 300  
gtgcatgaag ccttggacga aatatacaag atgccacttc ataaatttcg ttccgaggct 360  
attttaggtg ctgcgtcacc ttattattgg gccaggccca tgtaatttcg aaatacataa 420  
g 421

<210> 4784

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-A10

<400> 4784

taccggtcct aaattcccg gtcgacgggg agtccgcatg gtcgcgagg tggggccaca 60  
agttaacgtg tctctgtcag tacgcagtgt caggggcaag gcatgttgcg ctcttttttt 120  
tcctagaccg aagcaacagc tttgcctttg ctaacaacta gtaaataaaa tttggacaga 180  
aaatcccttt tggaggcaga gtcocatgga gaccggtttt tgaaaaattc agagtccata 240  
tttttacatg tcaaaaactg agataatata tacatatgaa cgcataatgc ataagtgtgt 300  
aaattttcac gatgaaataa gttgatacga ggagtgtgcc aaaaaacaca gatgatgaca 360  
ggttaacca tgaaacggtt cagcctttca ggcc 394

<210> 4785

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-A11

<400> 4785



cccgggtcca cgggcagcaa caaaggcagc taacagcaac atcaacagca acaacagcaa 60  
 caacaacagc agcaacagca acagcaacag cagcaacaac agcaacagca acagcaacag 120  
 caacaagcag caacaacggc aacagcaaca acaacaacaa catcaacagc aacaacaaca 180  
 acagcaacaa caacaacaac aacaacaaca acaacaacaa caacaacaac aacaacaaca 240  
 gcaacagcaa cagcaacaac agcaacaaca gcaacaacaa caacaacaac aacatcaaca 300  
 acagcaacaa cagcaacaac agcaacaaca acaacaacat taacggcaac aacagcaaca 360  
 acagcaacag caacagcagc aacagcaaca acaacaacag caagcagcaa caagagcaac 420  
 gacaacaaca gcagcaacg 439

<210> 4786  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-A2  
 <400> 4786

gtaccgggtcc tacattcccg ggctcgactat cacgatgtac ggggtcttgt cgcgatgat 60  
 ccgcatctcc atactcagcg aaaatagccg aacgaagatg tagtgcagcg gatgaagggt 120  
 aaacatagca aagacgtcat caaaccgcag gacgatcgta ccccgatgt cgccatccac 180  
 aaagcccttg ccctctggca ccttggccac gaaaaccggg tatgccacat ctttctctct 240  
 gagacgccgc ttctccaaag aaagaacact gtcgtgcaga ctccgcatag caccggttgc 300  
 agcattgagc atatttggtg gtagcatcgc cctaccgcgc acatgcaccc tcctcgagat 360  
 atcctgcggt gaacgtggcc cgtctgagc acggatcgta caccgtgccg gctggctcgc 420  
 acccttctta atctttcctt tgcgtgcctt c 451

<210> 4787  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-A7  
 <400> 4787

ggtccagaat tcccgggtcg acggggagtt taaccaggtt cgggccgcaa gtgacgcgta 60

ataccctact cttactgggt tgtgtgtacc tgggtgttctt ggactagcta caaagtgtgc 120  
 cgggtccaaa aagttcgaat ccgcctccag tacgcctcgg gcctcctttt aaagccaaag 180  
 gggtcgccac agtggcacac aggaggtgga aagtttgtac tgtatacaag tctatcgctt 240  
 ggcaccgtac gacaaaacac atttaatgcg ctgccgacgt gccctcttac tttactgggg 300  
 acgacaagga agctcgtcgc atccgccgcc gcttcgtctc gctctgacgc gcgtccagcc 360  
 tgactacgca tgcagcgcca tgctgggttg ttgctgagtt ggcgcggtgg cagagtcttc 420  
 atggagatct gcat 434

<210> 4788  
 <211> 98  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-A8  
 <400> 4788

cgcctgcacg taccggtcca gaactcccg gtcgacggag tacacgaata cagctctggt 60  
 tgatatcaac ctgtgtctac aaactgaggt actcagca 98

<210> 4789  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-A9  
 <400> 4789

taccggtcca gaattcccg gtcgacgggt tggatacatt tgttttgctt acaaataag 60  
 ggcctagctt ggagaaggat gaacattgga gcaagaacaa gcatggagat gatggcatgc 120  
 gcaaggggaa caagaacgga gttacaagtg atgatttcag gactttgaag ccaccataat 180  
 ggggtgcatga agccttgga gaaatataca agatgccact tcataaattt cgtcccgagg 240  
 ctatttttagg tgttgctgca ccttattatt gggccaggcc catgtaattt cgaaatacat 300  
 aagtataggc tattttttaga gtccgtatgt gtggggaaac aagagatagg gttgatttcg 360  
 gacccctcca ccaagggcca cgaaattccc cctcttcct ccatatatac aacccttagg 420  
 gcatcgttta gactttgggt tttgtttaca ttaaaa 456

<210> 4790  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-002-Q1-E1-B2  
  
 <400> 4790

attcccaggt cgacgggcac tagaatgtac tcgcgctatc tcaagaagat ctactcggtc 60  
 taagcttctt tttgcggtgt gtttgctgac acagatgaat attgggttta cgaataaatc 120  
 taactaagac caatagttac agtcactctg aaggcatgaa tgctagagca ggtctaggtt 180  
 tgaaggtctc tgcgacgtat taaattgatt tgggataata tatagggtttt tcatggcaaa 240  
 taaatactgc ctacgcttga ggttaatcga ggggtgtcca ttcacaatga cagtaagggc 300  
 agtagggcat acagcgtgtt gt 322

<210> 4791  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-002-Q1-E1-B4  
  
 <400> 4791

acgcctgctg gtaccgctcc gagaattccc aggtcgacgg ggtctcactg gtccatatct 60  
 ctttcttttag caacattgaa atcctcttga acctttaggg aatgccgctg cagtctacta 120  
 aagaaatcaa acagacccaa ctgctcaact acaaatttct taggattaat ctgtcgcaca 180  
 catgcacctc ataccgaggt taaataattc aaaatgattg acgaagctaa aatctaaaga 240  
 caacttaaga ttactgaaaa ctgcccaaaa caataatatg actgaattgt tagatggaac 300  
 caaaaaggaa attgtattta tcaagtttat taatctgcat gaactaagac agtctccgat 360  
 attcaagaat gtagtggctc ttgattttta atcagagata acaaatgacc agatgcgtac 420  
 aatagagggga aggagaagat actcacgtgt gtagecgcgt tgaatttgct gc 472

<210> 4792  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-B5

<400> 4792

gggtccgacg ggtctcactg gtccatatct ctttcttttag caacattgaa atcctcttga 60  
accttttaggg aatgccgctg cagtctacta aagaaatcaa acagacccaa ctgctcaact 120  
acaaatttct taggattaat ctgtcgacac catgcacctc ataccgaggt taaataattc 180  
aaaatgattg acgaagctaa aatctaaaga caacttaaga ttactgaaaa ctgccccaaa 240  
caataatatg actgaattgt tagatggaac caaaaaggaa attgtattta tcaagtttat 300  
taatctgcat gaactaagac agtctccgat attcaagaat gtagtggtctc ttgattttta 360  
atcagagatt acaaatgacc agatgcgtac aatagaagga aggagaagat actca 415

<210> 4793

<211> 469

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E1-C1

<400> 4793

cgcttctggtg taccggcccg agaattcncg aggtcgacgg gagctatatt tttattcacc 60  
acatgatatg tgttttgctt ggattttcat ttcattttat tttgtttttc tttttgtttg 120  
aataaaatacc aagatcttaa attcttaaat gttagagagt cttcacatag ttgcataatt 180  
attcaactac tcattgatct tcacttatat cttttggagt agtttgatcat ttgctcttgt 240  
gcttcactta tatcttttta gagcacggcg gtgggttttat tttgaagaaa ttgttgaaat 300  
ctcatgcttc acttatatta ttttttagagt ctttagaaca gcatggtaat ttgcttgggt 360  
tataaaatta gtcctactat gatgggcatt caagatgggt ataataaaaa ctttcatgta 420  
gagtgcattg aatactatga aaagtttgat acttgatgat tgttttgag 469

<210> 4794

<211> 117

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-C11

<400> 4794

taccggtcag gaattcccgg gtcgacggga ttgatacccg aagtcaagat accaacctaa 60  
tgtgttcgta gctggtgtgg gtactgatgt cttttgggat cacttcata aacaaaa 117

<210> 4795

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-C3

<400> 4795

cgctgtctg taccggccca gaattcccta gtcgacgggg tctcactggt ccataactct 60  
ttcttttagca acattgaaat cctcttgaac ctttagggaa tgccgctgca gtctactaaa 120  
gaaatcaaac agaccaact gctcaactac aaatttctta ggaggaatct gtcgcacaca 180  
tgcacctcat accgaggta aataattcaa aatgattgac gaagctaaaa tctaaagaca 240  
acttaagatt actgaaaact gcccaaaaaca ataatatgac tgaattgtta gatggaacca 300  
aaaaggaaat tgtatttatc aagtttatta atctgcatga actaagacag tctccgatat 360  
tcaacaatgt agtggctcgt gatttttaat cacagatagc agatgaccag atg 413

<210> 4796

<211> 471

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E1-C4

<400> 4796

cgctgtcgg taccggtccg agaattccca ggtcgacggg cgcgggcggc gacggcggcg 60  
gcgcccacat caacctcaag gtcaagggcc aggatggcaa tgaggtgttc tttcgcatca 120  
agagatctac ccagctgaag aagctgatga atgcctactg cgaccgccag tctgtggata 180  
tgaaagctat tgcattcctg tttgacggtc gcaggctccg tgccgagcag acccctgatg 240  
agcttgagat ggaagatggc gacgagatcg atgcatgct ccaccagacc ggaggccgcc 300  
tccctccacg cgctagaag aagccgttga gagtcctgct tgttgctcggc ctacaagact 360  
ctgatccatc attagagagc acatgaacga atgaaagtct aaaaagaact tgtgaggctc 420

tggccccaag ccatagctga aggacattan gggaggtttt gtttagtgcc g

471

<210> 4797

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-C9

<400> 4797

taccggtcct aaattcccgg gtcgacgggt cagggcaaca cactaggggt ttgttgccacc 60  
aacaggagcc ctccggcctg gactgatcgt gtttccgagc gtagtcgcgg taggcccttc 120  
caagtacaca ggcgaggagg ctgccataag tcgtcccttg aggtcttctt tgcttcttca 180  
taatctgagc ttggatcagt ttctggctctt cccgtgcac acgcaacgcc aattgtagtg 240  
gggccatatt tgtaatggcc catgaacgac tttaacgcat gggggagtaa ctgccaatc 300  
actcttccca ccacgttctt ctcccctacc acgtatgttg catgcattga atggggtaag 360  
taaaagaagc gcgtgggtgcc ggagagtgtc aacgcaa 397

<210> 4798

<211> 458

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E1-D4

<400> 4798

cgctgtccg taccgctcca gaattcncag gtcgacgggc agtaccttat gtgggtggttt 60  
tgttttcttt cactaacgga gcttataaga tttcatgttg agttttgtgt tgtgaagtcc 120  
tcaagttttg agtaaagctt ttatggacta tggaataagg agtggcaaga gcctaaactt 180  
ggggatgacc atggcacccc aagatattca agattagcca agatcctaag cttggggatg 240  
ccccgggaag gcatcccctg tttcgtcttc gttcattggt aactttactt ggagctatat 300  
ttttattcgc cacatgatat gtattttgct tggagcgggt tgtattatat tagtctttgc 360  
tttttagttt accacaatca tccttgctgt acacacctt tgggagaagc ctatttgatt 420  
agaatttatt tgttttttct ccagtgcctc acttatat 458

<210> 4799  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-D6

<400> 4799

taccggtcca gaattcccgg gtcgacgggg agcacaagga gggcatgatg gagaagatca 60  
 aggacaagat cagcggcgac ggccacggcg acggcaagaa ggacggcgag cacaaggaga 120  
 agaaggacaa gaagaagaag aaggacaaga agcacggcga gggccacaag gacgacgacc 180  
 caccacaaca ccatcatcgc atcccattag catcgccagt ttccttgagg agaagtagct 240  
 agaaacagca gcgccatggc cggcatcatg cacaagatcg aggagaagct ccacatgggc 300  
 ggcggcagcg acgagcaca gaaggacgag gagcacaaga agaatgacgg ggagcacaag 360  
 aatgacggcg agcacaagaa ggacggggag cacaaggagg gca 403

<210> 4800  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-D9

<400> 4800

cgccgccccg taccggtcct aaattcccgg gtcgacggga ccaacataga caaaacatac 60  
 acttaagtaa agcacttaca aaacagctac tcaaaccggc acaaggaaaa gccaattcca 120  
 acacagcggg agacatagtc aggccaatgt cgattagaac cagacacacc tacgaatcca 180  
 tatatggccc atccacaaca caaaacaac ttcgcaatcc ccacatggac caaacatcca 240  
 accaacagac caccggcacc ctctccctgc acaaagtcca accccccttc ccccaaaaaa 300  
 tcacatccac cgcccccca agcacacaat attattacag aaataatgga ataataca 360  
 tagaaaggaa ctaaaagagg aagagaagaa attgctacct tcccgcagca gatccacaac 420  
 accaaaacag cctcgcaatg cccacatggg aaaaacact 459

<210> 4801  
 <211> 442  
 <212> DNA

<213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E1-E1  
 <400> 4801

cgcttgctgg taccggctcg aaattcnega gtcgacgggg tcttgtaata tttgtgtctt 60  
 tgtgtcttag tattccacaa tcatccttgc tgtacacacc ttttgagaga gccatacatg 120  
 aattaaaatt tgatagaata ctctatgtgc ttcacttaca tcttttgagc taagtagttt 180  
 tgctctatgt gcttcactta tatcttttga gctagataat tttgctccat gtgcttcaact 240  
 tatactcttt gagcagtata attttgctct atgttcttca cttagatctt ttagagcacg 300  
 gtgggtggatt tgttttaaag aaactattga tctctcatgc ttcacttaa ttactttgag 360  
 agtctcttaa tagcatggga atttgcttaa taagaatatg cttgggattc aagatttgtg 420  
 aaacgttcgt ttgagtgtgt tg 442

<210> 4802  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-F1  
 <400> 4802

attcccgagt cgacgggtac aactatattc aaattacttg gaattattaa tatccggaat 60  
 acctcattgt gaaattacaa atgtgatttc aacaccatt gcaacgcacg aggccttttg 120  
 ctaataataa taaatatgat aataataata atataatact cttccattc ctaaataata 180  
 gtcttttttag agatttcaac acagaatata tacgaagcaa aatgagtga tctacacact 240  
 aaaatatgtc catatacatc cgttatgtga ctataaatta agaaatatct aaaaagactt 300  
 atatttagaa acatagggag tataaagcaa aagcttgctg attgttatgt tcatataggt 360  
 tggctagtat tactacaaat tcttcacgca actgcctcct ccccaaaagt ccagggtttc 420  
 tttgtg 426

<210> 4803  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-002-Q1-E1-F2

<400> 4803

tcgacgggta cgcaattgct ctagtacttc cattatatct tttagagcat ggcgggtggtt 60  
ataaatagtt gcactctcat gcttcactta tatctttttg agagttgata atagtaatga 120  
caattagtgt gggttataaa tttggtccta atgtgatagg tattcaagtg ggatataata 180  
caaactttca tgtagatcac tgaaaatgat aagtttgatt ccttgcaata gtttgcgata 240  
taaagtgtgt aatatgcggg ttgtgctagt gagtaattgt ggttttagtaa gaatattggt 300  
gttaacgttc gtgattcccc gaacatgcac gtatgggtctc tcgttatgct atgaagtttc 360  
atcatgattt aata 374

<210> 4804

<211> 433

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E1-F3

<400> 4804

attcncaggt cgacgggggc tcaacaatac tatggaactt cccgacaagg tgaagccagt 60  
gcaggaaatc agggaaatgca atcacctac agatccagtt cgtttcctgc acctcagtat 120  
gcactgcaga gagagaatgt ttttctgag agacctgac aaccggaatg catatactac 180  
ataaagactg gagattgtaa atttggtgca gtttgcaaat tccatcatcc ccgtgtgcgt 240  
tcacagcctc cccagactg tatcttgagc ccaatgggtc ttccattacg cccaggggaa 300  
gagctctgca agttctattc tcgctatggc atctgcaagt tcggcgtaaa ctgcaagtcc 360  
gaccacccga tggcggtcc gatgggggtc tacgcgtacg gctactccgc ctcggcgctg 420  
cccaacgcgc cca 433

<210> 4805

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-F4



ggtccagaat tcccgggtcg acgggactg agagagcttc cgaagaaggc tggccaacag 60  
 ttagtaatat tatctcaggt cctaattgat gatattaatg ttggttatga aaggctggct 120  
 gaactccagg taaagaaggt gaatggtgtt gaggttgaga atttgaagca tttgtgcagt 180  
 atcgtggaga actgcactga agaaaacttg agaattgatt tggacgatga gcgggagatc 240  
 gtcctgaaat ttcagaacgc gaggcttgcc acgtctcgga tcctcaagcg gcacaggatt 300  
 ccatcagcca tgtcgagtga ccttgtcgat gaacaagcga gcaaagggtga gactgacgcg 360  
 tcatgcacaa actgacacat tttcgta 387

<210> 4808  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-G3

<400> 4808

ggtacgcctg ctggtaccgg ctcgaaattc ccaggtcgac gggttcattg tgctggacga 60  
 agatcggcgc ttcagcatta agctcgagga gaccttcgat gttcatcagg tacgcaaccg 120  
 acgataatag tttttttcgt aattactcat gacttcaact attttaatca tgacaatatt 180  
 tttcatcttt tccaattcga ctagcttata ccatgctttg caagacgcta tgtcttggag 240  
 aggatggggt ttgaagacca tgaaagtttc gaaaccaaag aaattatcct aagtacccat 300  
 catggtgtgg attttcaa ataaagtgtac aatgctcaga gtgtaacca ttttggttgc 360  
 aaaaattggg aagcactttg caagatgtat gggtttgatg agggatatgct tgttaccatg 420  
 gatcttgggtg atcctacaat cgagcaagag agaccta 457

<210> 4809  
 <211> 319  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E1-G4

<400> 4809

cgctgcccg taccggctgt agaattcncg ggtcgacggg gtatcctttt gattcttcat 60  
 tttgagccaa aaaaattcac cgtttgtcaa aaaaaatatc tttcttgcgg aaaaagggga 120

tgcacccaaa tcaaaacaca tggatgggct cctagcctag tggcaagagc gcggtgatgt 180  
 ctctcggccg actcggggtt gaactgccta ggcaagcact tggtaaagtt acgttacctg 240  
 atctctgagt gtgggcactc catgatggac aacatattgt gcgtccacga tgccaaattg 300  
 ctcttcaggg tcttgccag 319

<210> 4810  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-G5  
 <400> 4810

ggccagaat tcccgggtcg acgggctatt tgaaactgct cgacgggagc ttaatcttcc 60  
 ttctgcta atgaattgatta gttctcagtc aaacaatgag gcaaatggaa atctggaaag 120  
 cacacaggaa gtgcagggtga acccaacgag cttatctcaa tacagggaca tccagagaaa 180  
 gattgttgag tttatcagaa agagatacca tattctggaa aaatgcttgg acattgaata 240  
 tgccgtgata aaaacaaata ctctgttcc tgatgatctt actgaacaaa atgttcttat 300  
 gggacatagc ccagctgttc cagatatcag tgaagtgttg agagaacttc cccctcttgt 360  
 accaatttct gccaaagaag tggcttctga tggctcaact gaccaggcac acctttccca 420  
 tctttacaac aagatgtgcg gtgtgcttga ggaca 455

<210> 4811  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-G7  
 <400> 4811

ggccagaat tcccgggtcg acggggtcgc aaacaagttg gggtaggcta tctcaagaca 60  
 tagaaagcca agaagaaatt tgtattttgg gttttagatt tgcaaattgt ggtatagcta 120  
 tcgctaccta gaatcgatag aagctctgtt tttttcaata aagcccagaa agccatactt 180  
 aactcattc tccagcaa atactccactg gtaagctatt ccttcgctag actcctttga 240  
 agcatcggaa gtaaacacaa gcaacctgtg gttctttgca accagatctg tgacggtggg 300

ccactcctgc ccactcgttg gcatttctga gatagggtag caatacttca tcaagtcagc 360  
 agcagtaaac aatttgctca atctcatcgg ggcattgtacg taatcctoga tgaatattgt 420  
 aacaatctcc gt 432

<210> 4812  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E1-G8  
 <400> 4812

ggtccaggac tcccggtcg acggagagca caagaaggac ggcgagcaca agaaggacgg 60  
 ggagcacaag gaaggcatga tggagaagat caaggacaag attagcggcg acggccacgg 120  
 ctacggcaag aaggacggcg accacaagga gaagaaagac aagaagaaga agaaggacaa 180  
 gaagcacggc gatggccaca aagacgacga ctggcaccgc agcagcagca acgacagcga 240  
 cagcgactga gccaaactccc gccgcgctcc ggcaacagcg ttcactgtat gcgagatcta 300  
 tgaacgcttg tgaaaaatgt ggcatacata tatgtttcac agtttttagc gtctgggtacc 360  
 atatgtatgt tatgcgtgac atgtctc 387

<210> 4813  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E1-H1  
 <400> 4813

acgcctgctt gtaccggccc taaattcncg agtcgacggg tacggattat cgggaattgt 60  
 tgtttgttct tccggtctca tttaaacttg cctagttagg tagtttcatt atgcttcacc 120  
 ccttgccatg tttaacaaca tttaatatgt atcagtagca ataccgagag agaactaact 180  
 aattgttgtg gtgtttcgtc aatatgcaac ttgttacata ttgagctcca cttaacttta 240  
 gcgttgcttg tgcactttgc catgccatgc ctcatcacac tggacatgca tcatacttga 300  
 ttgtgcatca tgacatgatt atgcctgtgt gtttaccatg ttgtttgctt cattccgggt 360

tgcttctctc gttagcttcg gtttcattcc gga

393

<210> 4814

<211> 226

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-H2

<400> 4814

acgcctgccg ggtacggccc gaaattccca ggtcgacggg ttttgctcat gtttagtaat 60

aaataattta tctagcctct gttttggttg tgttttttgt gtttaattag tgtttgtgcc 120

aagtagaacc gttggaaga cttggggaaa gtctttttga tcttgctgta aaaaacagaa 180

actttagcgc tcacgagaat ctatgccatt tttatttgga aggtga 226

<210> 4815

<211> 359

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E1-H4

<400> 4815

cgcctgccgg taccgtcctt aaattcncag gtcgacgggg gtagtcgagt gaatcctcac 60

aatcgcaaca ttaccggaac taagaagcaa caccggaaag aaacaaacaa tatggtaaata 120

gcacaagcat aaacatggca tgatgcacaa acaagtatga tgcattgtccg gtttaattgag 180

gcatggcatg gcaaagtga acaacaaca ctacaaatta agtggagctc aatatgcaac 240

gagttgcata ttgacaaaac ttcacaacat ttatttagtt tgctctcttt taagtacgca 300

ataatattaa atgttggtta acatgggaag acgggaagca agagagaact acctatcta 359

<210> 4816

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-H9

<400> 4816

taccggtcct atattcccgg gtccacggga agcgaccaag gacgatagac aggggtgctg 60

actctcctcg ctaaactcca ctgaagcttg ctgatctcca caaccttaca cgggtctaca 120  
 aaacagacct tcccacagtg ccaagcaatg caccaccaat gatggcttca tctgttacgg 180  
 aagcgtccta caagggcctc ctccacaatg gcttccagaa caattaaacc gttgttcaca 240  
 ccttccaatc ggatgggtaa tcaatcc 267

<210> 4817  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-A9  
 <400> 4817

ccccgggtcga cgggttgat acatttggtt tgcttacaaa tgaagggcct agcttggaga 60  
 aagatgaaca ttggagcaag aacaagcatg gagatgatgg catgcgcaag gggaacaaga 120  
 acggagttac aagtgatgat ttcaggactt tgaagccacc ataatgggtg catgaagcct 180  
 tggacgaaat atacaagatg ccacttcata aatttcgtcc cgaggctatt ttaggtgttg 240  
 cgtcacctta ttattgggcc aggcccatgt aatttcgaaa tacataatta gaggctattt 300  
 ttacagtccg tatgtgtggg gaaacaaaag atatggttga tttcggaccc ctccacgagg 360  
 ggccactaaa ttccccctc ttctctc 387

<210> 4818  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-B2  
 <400> 4818

cgcctgccag taccggtcct aaattcacgg gtcgacgggc actagaggat actgccgcta 60  
 tctcaagaag atctactcgg tctaagcttc tttttcggt gtgtgtgtct gacacagctg 120  
 aattttgggt taacgatcaa gtctaacgat gaccaatagt taaagtcact ctgaagtcatt 180  
 taaagctatg agcaggctag gtttgcaggc ctctgcgaag tactaattag gtttgggata 240  
 agctagtgat tgatcatggc aaagagatcg atgctagcct taggtataat catgccgtgt 300  
 cctttcacac tgatagaagg ggcagtagag aatatagcgt attgttggtg tccaggactc 360

tgatataggg ttattaacca aatgcatgaa tgtaactctg tac

403

<210> 4819

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-B5

<400> 4819

attccccgggt cgacgggggtc tcaactgggtcc atatctcttt ctttagcaac attgaaatcc 60

tcttgaacct ttagggaaatg ccgctgcagt ctactaaaga aatcaaacag acccaactgc 120

tcaactacaa atttcttagg attaactctgt cgacacatg cacctcatac cgagggttaa 180

taattcaaaa tgattgacga agctaaaatc taaagacaac ttaagattac tgaaaactgc 240

ccaaaacaat aatatgactg aattgttaga tggaacccaaa aaggaaattg tatttatcaa 300

gtttattaat ctgcatgaac taagacagtc tccgatattc aagaatgtag tggctcttga 360

tttttaataca gagataacaa atgaccagat gcgtacaata gagggaagga gaagatact 419

<210> 4820

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E2-B6

<400> 4820

gtaccgggtcc ggaattcccg ggtcgacggg gagccataat aataaaactc ggatgacaac 60

acttttctcaa aataatcata acatgatatt acaaaatggg atctcgctag ccctttctaa 120

gaccgcaaaa cataaatgca gagcaccttt aaagatcaag gactgactaa acattgtgat 180

tcatggtaaa agagatccag tcaagtcata ccaaatan acaaaagtaa tgaatcaaaa 240

taacagtgtt ctctcaagcg ggtgctttta ataagaaggg tgatgactca acatagaagt 300

aaatagatac gcccttttga gagggaagca gggatttga gaggtgccag agctcgattt 360

tgaaatacag atagaataac attttgagcg gcatactttc gctgtcaatg caacaactat 420

gagatggctg tatcttccat actacatgca t 451



GeneBank

<210> 4821  
<211> 152  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-002-Q1-E2-C10  
  
<400> 4821

ctatagtgag tcgtattagt cgcagcagca tgagccctcg ggcttgggaat gatccagttt 60  
ccgagcgtac tcgcggtagg ctcttccaag tacagacgcc aggaggctgc gataggctcg 120  
cgcttgagggt catcgttgcg tcgtcataat ct 152

<210> 4822  
<211> 70  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-002-Q1-E2-C6  
  
<400> 4822

ggggcacccct atagtgagtc gtattacgtt ctgctgcttg caggcttcgt agaagactcc 60  
gcttgggtgc 70

<210> 4823  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-002-Q1-E2-C8  
  
<400> 4823

gtacagggtcc taaattcccg ggctcgacggg tcagggaac acactagggg tttgttgac 60  
caacaggagc cctcgggcct ggactgatcg tgtttccgag cgtagtcgcg gtaggcctt 120  
ccaagtacac aggcgaggag gctgccataa gtcgtccctt gaggtcttct ttgcttcttc 180  
ataatctgag cttggatcag tttctggtct tcccgatcat caccgaacgc caattgtagt 240  
ggggccatat ttgtaatggc ccatgaacga ctttaacgca tgggggagta actgccaatt 300  
cactcttccc accacgttct tctcccctac cacgtatggt gcatgcattg agtggggtaa 360  
gtaaaggaag cgcgtggtgc gggagagtgt caacgcaagg gcctggcctt ctgcgattgg 420

ttgagaagga cgccggtcac ccatcg

446

<210> 4824

<211> 452

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E2-C9

<400> 4824

tacaagtccg aaattccccg gtcgacgggt cagggcaaca cactaggggt ttgttgacc 60

aacaggagcc ctccggcctg gactgatcgt gtttccgagc gtagtcgcgg taggcccttc 120

caagtacaca ggcgaggagg ctgccataag tcgtcccttg aggtcttctt tgcttcttca 180

taatctgagc ttggatcagt ttctggctct cccgtgcatc acgcaacgcc aattgtagtg 240

gggccatatt tgtaatggcc catgaacgac tttaacgcat gggggagtaa ctgccaattc 300

actcttccca ccacgttctt ctcccctacc acgtatgttg catgcattga gtggggtaag 360

taaaggaggc gcgtggtgcg ggagagtgtc aacgcaaggg cctggccttc tcgcattggt 420

tgagaaggac ngccgtcacc catcgacgga tt 452

<210> 4825

<211> 445

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E2-D10

<400> 4825

taccagtccg agattcncgg gtcgacgggg ccatcggaac cttcatctcc ggcgccaccg 60

tctatggcta cagaggaaag agcattaagt ctgccctcat cggtggttct agcctgacat 120

tcacatctgc cattcaggac gttggcggta aactaccac agtggacat ggcaaagcct 180

accatgcata cacaacggaa aagaagcccg agcctgcgca ttgatcaagg ttgtctactt 240

gtagcacaaa tcatgcaaac cagctcgggt aatttttgag ctgatgtgtg ctgttatgtc 300

tgttttgcg aagcacctag ttcatcttgc aaactgtaat aacttgtttt gtcgacggc 360

aatacaacat acctggaata aatatcttgc ttactttgc ttcatcaatt ggtacgatca 420

taatcacatg tgacacaata ttgtt

445

<210> 4826

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-D4

<400> 4826

gtccgaaatt cacgggtcga cgggcagtac cttatgtgga ggttttgttt tctttcacta 60

acggagctta taagatttca tgttgagttt tgtgttgatga agttctcaag ttttgagtaa 120

agcttttatg gactatggaa taaggagtgg caagagccta aacttgggga tgaccatggc 180

acccaagat attcaagatt agccaagatc ctaagcttgg ggatgccccg ggaaggcatc 240

ccctgtttcg tcttcgttca ttggtaactt tacttggagc tatattttta ttcgccacat 300

gatatgtatt ttgcttgag cggtgtgtat tatattaatc tttgcttttt agtttaccac 360

agtcacctt gctgtacaca ccttttgga gaagcctatt tgattagaat ttaattgttt 420

ttt 423

<210> 4827

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-D5

<400> 4827

tccagaattc ccgggtcgac ggggaacgtg ctgaccatct tcgaggagga aggcgggcgg 60

ccggacgcca tcatgatcct gacggtgaag cgcgacaaca tctgcagctt catctcggag 120

accaaccccg ggcacgtgcg gtcgtgggag accaaggaca gccagctgac gatggtggcg 180

gacgacctga agccgcgggc ggtgctgacg tgcccggaga agaagatgat ccagcaggtg 240

gtgttcgcca gctacgggaa cccgctgggg atctgcggca actacacgtt tggcaactgc 300

cacacgcca aggccaagga gattgtggag aaggcgtgcg tggggaagag gagctgcgtg 360

ctggccgtgt cgcacgaggt gtacggcggg gacctcaact gcccggggca c 411

<210> 4828

<211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-D6  
 <400> 4828

gtaccggtcc taaattcccg ggtcgacggg gagcacaag agggcatgat ggagaagatc 60  
 aaggacaaga tcagcggcga cggccacggc gacggcaaga aggacggcga gcacaaggag 120  
 aagaaggaca agaagaagaa gaaggacaag aagcacggcg agggccacaa ggacgacgac 180  
 ccaccacaac accatcatcg catcccatta gcatcgccag tttccttgga gagaagtagc 240  
 tagaaacagc agcgccatgg ccggcatcat gcacaagatc gaggagaagc tccacatggg 300  
 cggcggcagc gacgagcaca agaaggacga ggagcacaag aagaaggacg gggagcacia 360  
 gaaggacggc gagcacaaga aggacgggga gcacaaggag ggcattgatgg agaagatcaa 420  
 ggacaaga 428

<210> 4829  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-D7  
 <400> 4829

attcccgggt cgacgggtgc attgcacttt ctcacctcga gagttggtgc aaacttcgcc 60  
 ggtgtatcca aaccccgatga tatgatacgc tctatcacac ataagcctct ttatatcttc 120  
 ctcaaaacag gcaccatacc tacctattat ggcatttcca tagccattcc gagatatatt 180  
 gccatgcaac tttccaccgt tccgtttatt atgacacgct ccatcattgt catattgctt 240  
 tacatgatca tgtagttgac atcgatatttg tggcaaagcc accttcataa ttctttcata 300  
 catgtcactc ttgattcatt gcacatcccg gtacaccgcc ggaggcattc acatagattc 360  
 atattttgtt ctaagtatcg agttgtaatt cgtgagttgt aagtacataa tagtgtgatg 420  
 attttcatta ttaga 435

<210> 4830  
 <211> 441  
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-E1

<400> 4830

tccgaaattc aagggtcgac ggggtcttgt aatatttgtg tctttgtgtc ttagtattcc 60  
acaatcatcc ttgctgtaca caccttttga gagagccata catgaattaa aatttgatag 120  
aatactctat gtgcttcact tacatctttt gagctaagta gttttgctct atgtgcttca 180  
cttatatctt ttgagctaga taattttgct ccatgtgctt cacttatatc ttttgagcat 240  
tataattttg ctctatgttc ttcacttaga tcttttagag cacgggtggg gatttgtttt 300  
aaagaaacta ttgatctctc atgcttcact taaattatct tgagagtctc ttaatagcat 360  
ggtaatttgc ttaataataa tatgcttggg attcaagatt tgtgaaactt tcttttgagt 420  
gtgttgaata ctaaggaaag a 441

<210> 4831

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-E10

<400> 4831

cgctgcagg taccggtccg taccattccg ggtcgacggg atgccctctt tgaagattga 60  
gggtgtgtgc atgttggggg gcaaagaagc acaagcgaga gtggtcgccg tataaccttg 120  
gatggggatg aattgtgtgc tcggggagtg tgtgtgtgtg tgttgtgtc cgtgtgtctc 180  
tgtgtgtgtg tgtcagatat tgagagatca caaacctaag gagagaaatg ggtattcacg 240  
aagagattgt gcgggccttg aggtgggcat gggccgggta aggggtgtcaa aatgtgcccc 300  
ttgatgcatg tggtgcatgc aaccgtgcaa gggatggacg aatcgagaga tatggttgtt 360  
gtgttacgga tgctcctctc tctctctctc tctctctatc tctctctctc tctctctcgc 420  
tctctcacac acacacacac atgtac 446

<210> 4832

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-E5

<400> 4832

cctgcagtac aggtcctaaa ttcccgggtc gaccgtgacg gcaccttcac ctacggcggc 60  
tactccagca tgggtggtggt gcacgagcgc ttcgtggtcc ggttcccga cgccatgccg 120  
ctggacaagg gcgcgccct gctgtgcgcc ggcatcaccg tgtacagccc catgaagtac 180  
cacgggctga acgctcccgg gatgcacctc ggcgtgctgg gactgggcgg gctgggccac 240  
gtcgccgtca agttcggcaa ggccttcggg atgaaggatga cagcgatcag ctcgtcgcca 300  
gggaagaagc aagaggccct cgaaaggctt ggcgcgcgacg ctttcgttgt caacaagaac 360  
gccgacgaga tgaaggctgc gattagcacc atggatggca tcataaacac cgtgtctgca 420  
aacatccccca tgggccctct cttccggctg ctc 453

<210> 4833

<211> 418

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-002-Q1-E2-F1

<400> 4833

gtcgacgggt acaactatat tcaaattact tggaattatt aatatccgga atacctcatt 60  
gtgaaattac aaatgtgatt tcaacaccca ttgcaacgca cgaggccttt tgctaataat 120  
aataaatatg ataataataa taatataata ctcttcccat tcctaaatat aagtcttttt 180  
agagatttca acacagaata catacgaagc aaaatgagtg aatctacaca ctaaaatatg 240  
tccatataca tccgttatgt gactataaat taagaaatat ctaaaaagac ttatatttag 300  
aaacataggg agtataaagc aaaagcttgc tgattgttag gttcatatan gttggctagt 360  
attactacaa atgcctcacg caactgcctc ctccccaaa agtccaaagt ttctttgt 418

<210> 4834

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-F10

<400> 4834

taccggtcct aaattcccgg gtcgacgggt gttttacata gaacaacgca gcatggcgcc 60  
 taaattactg cgttgggtgct gaggtcacca ctatgtatca cttggatcgc cctatgtact 120  
 tgatgggata gcgtgcgatt caaactcgat tttatcctac tgacatcgag ttcaatgtca 180  
 gtgggtatag aatacgtcgc agtttgatcg actaccatac gcgtgtgatg cgcagggatt 240  
 tggaaagtgc aactgagatg tgaccgtcca taccatagac acaatatcgt agtggctctc 300  
 atttcgtgga atcgagagga atgttggacg aggctcgtta aatagccact gatgctgaag 360  
 atcactttga attcgctgtg cagcgtggac aactacaaat cgcaaacgc 409

<210> 4835  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-F5  
 <400> 4835

tacaggtcct aaattcccgg gtcgacgggc gtgaagatga ccagatcgag tctgtagcgt 60  
 gtgtgtcccc cggcgtgagc ccgtggttgc gttcgtggag tgaaggagct gcatgcgcag 120  
 agccgttgcg atctgttga gtcaggtgcg atgtgcgcgc ggctggaggg agttagttgc 180  
 aagctagcta gatggttggc cgggtcatgc tagtgcatgc atgggctagc ccggcgggtc 240  
 atgtggtcat gcatggatat ggatcgtgca tgtagtggtt agcttagtgc gtgagttagt 300  
 tgccgggtgt gcaggccgtg tgggtgtgtg gcacgggtat aaaaaccct cctccatgta 360  
 ctgatcgagt tgagccgtg tgtagccatg tagccactgt aaggaagaaa aggattgggg 420  
 c 421

<210> 4836  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-F6  
 <400> 4836

attcccgggt cgacggggca gtcgctgcca ggatgctgat tgtgatgagc attaagctga 60  
 agctcgtctt tctcggcgtt cgcaagagac ggcgtgacct gtgaatacat cgagtgcggc 120

atgtaacata ggcaaatagc ctgcctgaag agtgagggag agaaaacctg catagatttt 180  
gttctggcgt ttttgtgtgt gtttctagtgt attgtttggg tttattttcc gcgcttatgg 240  
atgtacatta caggtatata agacagcata gtgatgatgt cttcttcatg gttatggaag 300  
tgaaagtaat gttatggaag tgaaagtaat ggtatgaatg ctgtcttcat ggttataaga 360  
cagcatagtgt aaaaataaaa gggaaaggga aagaaaaaaa aaaaagcgg ccgctct 417

<210> 4837  
<211> 331  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-F7

<400> 4837

ttcccgggtc gacggggcag tgcgtgccag gatgctgatt gtgatgagca ttaagctgaa 60  
gctcgtcttt ctccggcttc gcaagagacg gcgtgacctg tgaatacatc gagtgcggca 120  
tgtaacatag gcaaatagcc tgcctgaaga gtgagggaaa gaaaacctgc atagattttg 180  
ttctggcgtt tttgtgtgtg tttctagtga ttgtttgggt taattttccg cccttatgga 240  
tgtacattac aggtatataa gacaccatat tgataatttc tccttcaggg taatgaaatt 300  
aaaattaagt taatgaaatt gaaattaatg g 331

<210> 4838  
<211> 425  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-F8

<400> 4838

aattcccggg tgcaggggca ctgagagagc ttccgaagaa ggctggccaa cagttagtaa 60  
tattatctca ggtcctaatt gatgatatta atgttgggta tgaaaggctg gctgaactcc 120  
aggtaaagaa ggtgaatggt gttgaggttg agaatttgaa gcatttgtgc agtatcgtgg 180  
agaactgcac tgaagaaaac ttgagaattg atttggacga tgagcgggag atcgtcctga 240  
aatttcagaa cgcgaggctt gccacgtctc ggatcctcaa gcggcacagg attccatcag 300  
ccatgtcgag tgaccttgtc gatgaacaag cgagcaaagg tgagactgag gcgtcatgca 360



caaactgaca cattttcgta ggcgtagcta cacagtttct gtggaagcac cgatgttaac 420  
tcggt 425

<210> 4839  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-002-Q1-E2-G1  
  
<400> 4839

ggtagcgctg ccagtagcgg tccgaaattc acgggtcgac gggaagggtca ctcagaatat 60  
ggccctcaag ctaaggaaca ccgacactgg cgagctcatc atgcacctgg agtgggttaa 120  
cctcccccca ggcatgtcgc ggtgatttga tttgatttgc agaggaggc cagctattgt 180  
ctgccttttg tgatcgtaat gttgcttctt ctatatatga gctatgaaaa taattaagcg 240  
atgcctatct cattctttac ataacaccca ccgtaatgat ttgtggatct caccaggatg 300  
gtgcgtatat aatatgagca acgtcgtggg gagatccgca gatcatcaca gtgggtgcta 360  
cgtaaggcat gtgatagact tatgctgctg ggggtaatgc ttgctttcag ttttggttct 420  
gcatatgttg tatggctatt ttaatacaaa a 451

<210> 4840  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-002-Q1-E2-G10  
  
<400> 4840

taccggtcct agattcccgg gtcgacggga agcacctacg taggcaggca ctgaagtggc 60  
actcagcctt cattccagggt gaggataagg agtgtcttgt cccatctaata cagagtctcc 120  
tgccacacct caaccttaag aagaaccgtt catatagcat ctgtggcaac gtcgaattgc 180  
tggccttcac gaatcaatgg tcgatttata gtttgctgcc actgtagatc tacgtcatat 240  
acgtacctta cctcattaat gtgagtgtca cgttctgata cgtgtccccg tttgtgcttc 300  
cagatcctgt tatggttcgc attgccact gaggtcggg aag 343

<210> 4841  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E2-G3

<400> 4841

ggtacgcctg ccngtagcgg tccgaaattc acgggtcgac gggttcattg tgctggacga 60  
 agatcggcgc ttcagcatta agctcgagga gaccttcgat gttcatacgg tacgcaaccg 120  
 acgataatag tttttttcgt aattactcat gacttcaact attttaatca tgacaatatt 180  
 tttcatcttt tccaattcga ctagcttatc ccatgctttg caagacgcta tgtcttggag 240  
 aggatggggtt ttgaagacca tgaaagtttc gaaacaaaa aaattatcct aagtacccat 300  
 catggtgtgg attttcaa ataaagttgtac aatgctcaga gtgtaaccca ttttggttgc 360  
 aaaaattggg aagcactttg caagatgtat gggtttgatg agggatatgct tgttaccatg 420  
 gatcttgggtg atcctacaat cgagcaagag agacctac 458

<210> 4842  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-G5

<400> 4842

gtacagggtcc taaattcccg ggtcgacggg ctatttgaaa ctgctcgacg ggagcttaat 60  
 cttccttctg ctaatgaatt gattagttct cagtcaaaca atgaggcaaa tggaaatctg 120  
 gaaagcacac aggaagtgcg ggtgaaccca acgagcttat ctcaatacag ggacatccag 180  
 agaaagattg ttgagtttat cagaaagaga taccatattc tggaaaaatg cttggacatt 240  
 gaatatgccg tgataaaaac aaatactcct gttcctgatg atcttactga acaaaatggt 300  
 cctatgggac atagcccagc tggtccagat atcagtgaag tgttgagaga acttccccct 360  
 cttgtaccaa tttctgcaa agaagtggct tctgatggct caactgacca ggacacacct 420  
 tcccatcttt acaacaagat gtgcggtg 448

<210> 4843

<211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-G6  
 <400> 4843

attcccgggt cgacggtggt gtgataccat cgtcgtcatg aagttatcct cggtggtgtg 60  
 atgccgtccc caagatgagt cgctgtgacg ccggcggcaa gacatacatg accaggtgcg 120  
 ttgccggtgc aagtggagat ccatgccgcy gtgacaggcy ctgtgacggc gtcattccaca 180  
 gcgagatgcc ctgtgtggtc ttggtgctgc gaaggcaaag ttcattggcaa gaggtctgca 240  
 tgtgatctgc atcaagatta gaggagtga catgacaaga ttacggacgt gaattgttacg 300  
 attaatcttg tctagccgag ctgagagagt cagttagttt gttagctgcy tgagggtcgt 360  
 gtgcctagag tgattctagg aggaagaagt ggtcaagata agattagatg ggtgcatgta 420  
 aagtggcggt agtg 434

<210> 4844  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-G7  
 <400> 4844

gtacagggtcc taaattcccg ggtcgcaggg gtcccaaaca agttggggta ggctattctca 60  
 agacatagaa agccaagaag aaatttgtat tttgggtttt agatttgcaa attgtggtat 120  
 agctatcgct acctagaatc gatagaacct ctgttttttt caataaagcc cagaaagcca 180  
 tacttacact cattctccag caaataactc cactggtaag ctattccttc gctagactcc 240  
 tttgaagcat cggaagtaaa cacaagcaac ctgtggttct ttgcaaccat atctgtgacg 300  
 gtggggcact cctgcccact cgttggcatt tctgagatag ggtaccaata cttcatcaag 360  
 tcagcagcag taaacaattt gctcaatctc atcggggcat gtacgtaatc ctcgatgaat 420  
 attgtaacaa tctccgtggg attctcggt aa 452

<210> 4845  
 <211> 387  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-002-Q1-E2-G9

<400>       4845

tacggctcta aattcccggtg tcgacgggga ccaagcaggc aggcaggcgc accaggctag   60

cggttgctga tcagcagctg cacatatagt cagtcgagtc gagtcgaatc gaggcagtat   120

agtttagctg gagcttgaga gggtcagatc atggagctcg tcgggagttg gaggaagggtg   180

atgccttaca tggccatggt ctctctgcag ttcggtctacg ccgggctctt cctcctctcc   240

gtcgcgtcgc tgcgccaggg catgagccac tacgtcctcg tcgtctaccg gaacgccatc   300

gccgcgctg ccatggctcc ctctgcgcta tggtttgaga ggaaaacaag gcgcaaatg   360

accctctccc tgttctacaa gatcgtt   387

<210>       4846

<211>       441

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-002-Q1-E2-H1

<400>       4846

acgcctgtcg gtaccggtcc gaaattcacg ggtccacggg tagggattta tccggaattg   60

ttgtttgttc ttccggtctc atttaaaactt gcctagttag gtagtttcat tatgcttcac   120

cccttgccat gtttaacaac atttaaatatt gatcagtagc aataccgaga gagaactaac   180

taattgttgt ggtgtttcgt caatatgcaa cttgttacat attgagctcc acttaacttt   240

agtgttgttt gtgcactttg ccatgccatg cctcattaca ctggacatgc atcatacttg   300

attgtgcac atgacatgat tatgcttggtg tgtttaccat gttgtttgct tctttccggt   360

ttgcttctct cgttagcttc ggtttcattc cggatttggt aggattcggt cgactacgtt   420

cgtttgacct cttcagggtac t   441

<210>       4847

<211>       430

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-002-Q1-E2-H11

<400> 4847

acgcctgcag gtaccggtcc tacnattccg ggtcgacggg atgatccagg aggccgacct 60  
cgacggcgac ggccctcgta acttcgacga gttcgtcagg atgatgatgc tctccgacgc 120  
cgaccagcag cagcagcagc agcattgaga gtttggtccga gactaggaaa tatagtccgt 180  
ccgtccgtcg tcgatttctt cgggtggacgg acggacacct ctctaattccg cccgggggatt 240  
aagttagcta agctagccat gcatgtgtgg atgaatggat cttgaattct tgattgatta 300  
gttacaactg ttattggaaa agctagagat tagataacta actagagaaa agaaaaaact 360  
aactgaacgt ggtgattctg ttccgtcggc gccagcgggtg catataatta aataattttc 420  
accagtgact 430

<210> 4848

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-H3

<400> 4848

taccggtcct aaattcacgg gtccacgggc accgtcgaac tggaggagct gacgtctttc 60  
ttgacggtac caccgcggta tctacatggg gctggggcgt ccaaggagtt gcctctccac 120  
gttcgcatcg acaagatcac ctctgatct ctccactac tcttaattct ccagtgggca 180  
tatgcctaag aagtgatgta ttttggttac ttggttgtag tcccttggtc gcaaaaattct 240  
tgtcttaatt tttttaaata aggatgtatt aagtcattatt ttagtattag atacatccta 300  
tctagactaa tataagacaa gaattttgag atggagggag tgcgtaatac atgtcttggtg 360  
gcagggtattt tggttgtagt actttgagat cagacgaggt acttcgctag ttccgacagt 420  
ggaaggggt 428

<210> 4849

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-H5

<400> 4849

ttcccggttc gacgggtttt ttttacggca cggagtgcta tgtccggatc actggtgata 60  
 gtgataattc tgttgtgccc gggcattttg agcttcatat accgtaatgg ggtacggctt 120  
 ggaagcatgt gaatgtgtct caccacagca aaccatgata ccctctgttg agtgatgaca 180  
 catggaagag aaactcttcg gacctatagt tctccggcgt gctgaatacc acgtcgagtt 240  
 tgatttttcc cgagcatctg gcttcccgac tagggataat actgtgaaag gttgtgttac 300  
 tttggtcaat gcgactcatg tccatttgca ttctattgag tgtgtcctca tagatgaggt 360  
 tcagtccgct atgctaccgc cgtccttgag aacttttagt agccaaaacc cgtctttggg 420  
 tttaggac 428

<210> 4850  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-H7  
 <400> 4850

gcctgccggt acaggtccta aattcccggt tcgacggggg ggttcaacgc ggtgccgtac 60  
 gtggtggcgc ttttcagctg catgctgtgg atctttctac cgctgggtcaa gaccaactcc 120  
 agcccgtgct tcaccatcaa cgccttcggc tgcgtcgctg agggcttcta catcctgctc 180  
 tacgtggtgt acgcgccag ggcgcgcagg caccgcgcgc tcgccttctt cctcctcctc 240  
 gacgtcgccg ctttcgccct cattgtctcc gtcaccgtgc tcctcgtgcc ccagcccagc 300  
 cgcgtcaagg tcctcggcag cgtctgcctc gcctttctca tggcgcgtct cgtcgccccg 360  
 ctcagcgtca ttttcgtggt gatcaagacc aagagcgccg agtacatgcc cttctcgtct 420  
 tcctttcttc tcaccctcag cgcgcgtc 448

<210> 4851  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-A10  
 <400> 4851

ggtaccagtc cagaattccc gggtcgacgg ggccacggga cgacggagat gtgggcccgc 60

gcgacgtggg caagatggag cacgggtgcg agcattaccg gcggagatgc aagatcgtag 120  
cgccgtgctg caaggagggtg ttcccctgcc gccattgcc caacgacgcc acggccttgg 180  
gtgatcggca taatatatgt cgccaggatg ttgaaaaagt agtgtgtgta ctctgtgata 240  
ctgaacaacc ggtgtcacia gtgtgtgtaa gatgtggagt caatatggga gaatacttct 300  
gtgatgtatg caagttttat gatgatgaca cagagaaagg gcagtaccat tgccatgatt 360  
gcggcatatg cagggttggg ggcaaggaaa actacttcca ctgtgcaaag tgtgggtcat 420  
gttatgctgt tgcgttgcgt gataac 446

<210> 4852  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-A2  
<400> 4852

gggtcgacgg ggatggacac cttctactcg acctcgtcgg cggcggcgag cggatggggc 60  
tacgactcgc tcaagaactt ccgcgagatc tccccgcgcg cgcagtcca cctcaagctc 120  
gtttacctga ccctatgctt tgccctggcc tcatctgcgc tgggtgctta cctgcacatt 180  
gccctgaaca tcggtgggat gctgacaatg cttgcgtgta tcggaaccat tgccctggatg 240  
ttctctgtgc cagtctatga ggagaggaag aggtttgggc tgctgatggg tgcagccctc 300  
ctggaagggg cttcggttgg acctctgatt gagcttgcca tagactttga cccaagcatc 360  
ctcgtgacag ggttttgttg ganccgcctc gcctttgggt gcttctctgg cgccgcatca 420  
tcg 423

<210> 4853  
<211> 348  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-A6  
<400> 4853

gggtcgacgg gctgccagaa acgcctgggc ggaggaaaat aggcgcggaa cacgcgagga 60

tggatgctgt ataaaccatg agttggagaa aaaaaatgat ttttcagttt gagaaccggc 120  
gccgagagag agagggagag ccgagaagag gaaggccggg atatttatta tattaattaa 180  
agaaaaaaag ggcaagttag ttagttggtg ccacagaatg caatgcatgc tcccttcac 240  
atcatcatca tcatcatcat aatgtgatca gagctgagac ctgatcgatg gcaaataa 300  
gtacttagat cagtactcct gcttaaaaaa taaaaagtgc aatataaa 348

<210> 4854  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-A8  
<400> 4854

attcgcggt cgacggggag gaccatgatg agctgtagat ggtttaaag gggaaccaat 60  
ttttgtaatg ggtagtagg ggggaggaga catggataat tgggtgctcta cttactttgt 120  
gttggtggtcg ggggtggtcg ggtttgttcg cggagactgc tgttattagt ctggtggccg 180  
agttgtagag aactctcttt gctgctgctg ctgttacttc cttctgatgt ttttctgttt 240  
tgttattata tagccggatg aagaaaagat gatgcagttt tatctaaaaa aaaaaatcaa 300  
aaaaaaaaaa aaacaaaaaa aaacaaaaaa aaaaaaaaaa ataaaaaaaaa aaaagcggcc 360  
gctctaaagg atccaagctt acttacgcgt gcatg 395

<210> 4855  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-B10  
<400> 4855

gtaccagtcc agaattcccg ggtcgacggg gacgccattg accaggccat ccagtggctg 60  
gacggcaacc agcttgctga ggcagatgag tttgacgaca agatgaagga gctggagggc 120  
ctctgcaacc ccataatcgc caagatgtac cagggtgccg gagctaacat ggcggtggc 180  
atggacgagg acgatgcacc tccggctgct ggcggcgctg gcccgaagat cgaggaggtc 240  
gactaagcga gcacttgtag cagtcttacc ctaaagttat tccgttcgtt atgttggatg 300



ctactgcagt acgtggtggt ggatgtgatg tgtgtgaact gcgtttgctg ctgcttttct 360  
 gttaatgtta gttgcatctg gtgatatgct gcaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 420  
 aagcgccgc tctagaggat ccaagc 446

<210> 4856  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-B12  
 <400> 4856

attcccgggt cgacgggagg ccatccagcg gctcgaggcg atggggttca accgtgagct 60  
 tgtgttgagg gtcttctttg catgcaacag ggatgaagaa ctggctgcca actatctttt 120  
 ggatcatggc cactgagttt aggaacaaca atagatgtta gattggtgtt accgtcgaaa 180  
 gacagaagag tcagtgcacat aagcagtaca gtttggtgtc gttcttatat cttgctgctg 240  
 aatataccta ctagtacttg tcattagtgc gatgctgctg actttaaaatt tcttgatatcc 300  
 tggaaattct ttctaagtac atatcaatat caatattcaa accttaaaaa aaaaaaaaaa 360  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagcgccgc tctacaggat 420  
 ccaagctta 429

<210> 4857  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-B6  
 <400> 4857

ggtaccgatc cagaattcgc gggtcgacgg gaggcgacag tggaactttt ggcgatcgtg 60  
 gtggctttgt ccctgctcgg tcgccgcatt tgacgtgcag tacatcatcg acgagtgatg 120  
 tcaccgttga tctgtatgaa taatttgtgt caaataaaag gggggaagtg actagtgaag 180  
 taaaacgacc tgtaacttgt taccctattc ttttgcaaat gttcatgcta atcatgccat 240  
 aaacacgaac tgttcgcttc aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa 300  
 aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa ccaaatcaaa 360

caaatacaaaa ctaaaaaat

378

<210> 4858  
<211> 309  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-B7  
  
<400> 4858

aattcgcgagg tcgacggggg aggagggcag ggagctcctg aagaagtaca cgggtgctcat 60  
gaagaagagg atggggatcg agagacgcct ggtggagaag atcgggcgtg cgtagatata 120  
ctataggaca tttcatatgg cactggggcc atatgagcat agggattata taggaaatat 180  
aataaagtca ttgtatcaac tgttgacgct agctgggtgc gtgcgcgtca gccgtgaaga 240  
atgtgccgcy gtcctgtgaa cgaataattt gtgatgcatt cgttatgaaa aactgtcaca 300  
tgtttctac 309

<210> 4859  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-B8  
  
<400> 4859

gacggaagta accaactgga cagcacatca ttgttcacat tatccctgtt tcttcttttt 60  
cttctttctt tttctgttct ttttatttat atttttcgtt ttttatTTTT tgttaaattc 120  
atggacatct tagtagggaa taccaaagga aaaaaaaac tccgtgaaca atttttccaa 180  
aaggaaaaaa aggcccaatt ttttaaaaaa aattttaacg gtttaagaat taatttcaat 240  
ggtttttaaaa ggaatttaaa aattttccaa aggaaaagtt cccggaattt tgaaaaaatt 300  
tgtaaaattg aaaaaatttc ttggatttga aaaaattcaa cggtttcaaa aaaattcaac 360  
aatttcggta aaaattttca cgcattagtt aaa 393

<210> 4860  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-C10

<400> 4860

ggtaccagtc cagaattccc gggctcgacgg gacgacggat ggtggtggcg ccagagggat 60  
gcacggggta aagctcatcc gagctgtcac atcgggtggag taccatccgt gtacgggtgt 120  
gccaaagatc gacactagcg gcgaaggcgg cgggacgacg ggtggtggtg gcgccagagg 180  
gatgcacggg gtaaagctca tccgagctgt cacatcggtg gagtaccatc cgtgtacggg 240  
cgtccttcac agaaaagccg atatcgtcaa attcaacagt gataggattc tcacgagcaa 300  
ggcggcgaac agaaactaga ttagtgacta agtcaggaga cacaagaaca ttagatatgt 360  
taacggggagt agaagtagaa gggaatgacg tttgaccgac atgtgtaatg ggtangaagg 420  
aaccgttacc aacggtgatg cgagt 445

<210> 4861  
<211> 417  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-C11

<400> 4861

gacgggatca ttccggggat gtccgtcgaa tgatgtggaa tggggaactg atgggtttgg 60  
ctaattctcag tattaattat tactgagtag tatcatcgta ctgcagggtg cgcgcgcgtg 120  
tggattactt actttagtta atttattatt actggattgt actgctggc gttagttaaa 180  
ttattacctt cagggtgtgtg cctcgatctc tcttaatcag tagtagtccg cgttggtgcg 240  
gtgacaataa taaaacacga cctactactt gtgcatgttg tgatgcatgc atgtgtactg 300  
gtcattcatg ctgtaaaaaa aaaaaaaaaa aaaaaaaaaa ataacaaaaa aaaaaattaa 360  
aaaaaaaaa aaaaaaaaaa aaaaaagcgg ccgctctaaa ggatccaagc ttactta 417

<210> 4862  
<211> 384  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-C2

<400> 4862

gggtcgacgg ggctctccg cgccggcgcc ggcattgcca ccacgttagg cccgggtgctc 60  
 gccgaccttc cttcatccga gccggaccca gatgacgcct ttccttcate cgagccggat 120  
 ccagatgacg cccttccttc atccgagccg gatccagatg atgcggtgcg tgcgtcgtca 180  
 gaggcgcccg aacatgaggg gatggggcca cgtccaccgt ttcgggagat ccacgctgct 240  
 cctccggcgt ccgctgaca agaatacctc ggcgtacggc cgtgacagtt agcattggcc 300  
 gaccaatcga tatgtaagcg cgattcaca gtgcggaagg attagcgcat cgacaaaaa 360  
 gccgctgct aatgggtgta cacg 384

<210> 4863  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-C4  
 <400> 4863

gccgtcggac tccctaaaga gagtcgtatt agggctgatg gcagggaatc gtgctcccaa 60  
 gaggggtgaat aactatgctc ggatcgttgg ccgcatctgg gcgcagatcc cattcatgtg 120  
 cggaagcagc atgcacatca acaatcgact actcactggg caccatccat acgacggcag 180  
 tggggctcag catgttcgcy tcggggacgt gcataacgcy gaagtcgctg ttcgtcgcgt 240  
 gcggctacac gatcgcgtct gtgtctatgg tgctcacggt cctgataggc ctggtggtga 300  
 tgctgctcgc gtcgctcgcc atctgcatgc acgggtacct gctgcacatt gctgttgtag 360  
 atgccgtact agccctatct 380

<210> 4864  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-C6  
 <400> 4864

gtaccgatca agaattcgcy ggtcgacggc gccgtcgatg acgcacatcg cgttgatggc 60  
 aggggaagaag gttctcaaga ttccgaatac ctatgccagc ttccttggcc tcatctgggc 120  
 cctgatcgca ttcaagtgcg gaatcaagat gccaaaaata atcgacgact cactgttcac 180

catccagacg acggcggtgg ggctcagcat gttcgcgtcg gggacgttca tagcgcgga 240  
gtcgcggttc gtcccggtcg gctacgcgat cgcgtcggtg tcgatgggtg tcaagttcct 300  
ggtaggcccg gtggtgatgc tgctcgcgtc gctcgccatc ggcattgcacg gcaccctgct 360  
gcacattgct gttgtacagg cggcactacc cctagctgtg acttcatttg tgtacgctga 420  
agaatacaag gtcattgcaga catcatgagc acaggggtaa 460

<210> 4865  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-C7

<400> 4865  
aattccccggg tcgacgggaa ctttgggagc cggagacact ggtcgaacat ataaagtttg 60  
atcatgggta tacctcgaag agtccagcaa ttgtcaatct acttgagatc atgacggaat 120  
ttactccgga gcaacaacat gcattctgcc agtttgtgac tgggtgctct cggcttccac 180  
ctggtggctt agcctcccta atcctaagct gactatagtt aggaagcact cttcgactgc 240  
ggcgaatact tcaaatgcag ctggagcagc agagtctgca gatgatgatc tgcctagtgt 300  
catgacttgt gccaaactatc ttaaacttcc gccatactcg acaaaggagg ttatgcacaa 360  
gaagctgctt tatgctatca acgaaggcca agggctggtt gatcnttcat agtgggttca 420  
aaactaacat acatgca 437

<210> 4866  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-D1

<400> 4866  
ggtccagaat acncgggtcg acggggccat ggaggccgcc gtgaagccga tgaggaggga 60  
agacaaaggt tgttgccagg agggaattat gctgctgctg ctgctgctgc tgctgggaga 120  
tgctgccagt ggctttgttg gcgtctagaa gcttctaggt gaggcggcac cgccttctag 180

ggtcattggct gcctgcccgc gctgcgccgc ccgtcgggaat tcatttcagt cgctccatca 240  
aatccgttcc gttcctatgg gtgacatttt ctattttctg cgttcgtttg tagtagtagt 300  
agtgataata atatgatgat ggtcctcctc cctgcggtgc aagagagtgg agagccctag 360  
ccaggcaggc tcctcttctt cttctgtgta aaaggcttga acttgaagtt ggtactacta 420  
nataaatana acccagctcc tctc 444

<210> 4867  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-D10  
  
<400> 4867

aattcccggg tcgacgggga cgaccggatc tgctcggcca cctttgtttc tgccttgctt 60  
agcagcaccg cgcatatgcc ccacctcccc agccagcgca gccgcccctc cgtgtcgagt 120  
cctgtgctgg ccacgcccgc cgtctgcca gcaccgctct ccggttgctt taaacaatcc 180  
agctccacca ctaatccatg cccctgccc ccgactcaag aggatcagct gctagcatag 240  
cgggtgtgcag ggggaggcct tgagcagaca ggtgactgcg tcgctggggc ggatatgagg 300  
cacatctgca ggcagcggac tgtaggcaag aggcacatgg cagtgtggcg agatggtcgg 360  
tggttctgtg ctgttgcgag tgggctacct agaagatgga cacgaagaat atggtgccag 420  
aaatggc 427

<210> 4868  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-D2  
  
<400> 4868

cggctccagaa atcncgggtc gacgggtatc agcacctccg gcaagttctg cagggccaca 60  
agaggccgat ggtgatggca acgtgatcag ccagccagca gcttgctgga tcctctctc 120  
tctggatgcc taaagtcagt atgtcaatgt aatgtaaaca tccctttccc cttcccttt 180

cttcatgtaa cttcgggtcta ctccttaaga gtcttggttaa agcttgtgct ctgtagttgc 240  
 ttcagctact ggtaccgtct attgtgtgtg atgtaatata ttttggacca ttatgccatt 300  
 cctttttcaa tcaatctgcc cgttgttgcc gtgagtctga agatgattgc tgtgtttgtt 360  
 ccttcaaadc ctgatgaact ttaattgcta caaaaaaaaa aaaaanaaaa aaaaaaaaaag 420  
 cggccgc 427

<210> 4869  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-003-Q1-E1-D9

<400> 4869  
 gtaccagtct acaattcccg ggtcgacggg gagaatcaac acaacggact gcatctgccc 60  
 agacgatttt tgcaacggcc acgacgaagt gcatctctca attccaggat cagcatgctg 120  
 gatgaatcct ccttgcctgt taagttgcaa tgggtgcaacc aaacaccatg gaggcctttg 180  
 tattanggac ggtgaatctg catcgatagt gatggatgga aattgctcgc cctccttcct 240  
 ccataaacca tggggacctt gtatagttgt attagcctcc ccatctatcc gtcaggaagc 300  
 cctgactttc cctgctattg ctgtcgaaaa cgctaccctt gcagaacatg aaccgaactt 360  
 aagtatcgca catggagctt caggtaacaa atctgaaaga accaaaatta atg 413

<210> 4870  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-E12

<400> 4870  
 ggtaccagtc cagaattccc gggccgacgg ggagcacaag aaggcggagg agcacaagaa 60  
 gaaggacggg gagcacaaga aggacggcga gcacaaggag ggcatgatgg agaagatcaa 120  
 ggacaagatc agcggcgacg gccacggcga cggcaagaag gacggcgacc acaaggagaa 180  
 gaaggacaag aagaagaaga aggacaagaa gcacggcgag ggccacaagg acgacgacgg 240  
 ccacggcagc agcagcgaca gcgacagcga ctgagccagc tccggccgcy ctccggcagc 300





ggagcagtgg atcgcgcatg agcctgcttg tgatagcctt ttgttcacag ccagctgtcc 420  
catgaaccgg gaagggc 437

<210> 4873  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-E7  
  
<400> 4873

attcgcgggg cgacgggaag accaacatcc tgtacaagct caagctcggc gagatcgta 60  
ccaccatccc caccatcggg ttcaacgtgg agacagtaga gtataagaac atcagcttca 120  
ctgtttggga tgttggtggc catgacaaga taaggccttt gtggaggcac tacttccaga 180  
acactcaggg ccttatcttt gttgttgaca gcaacgacag acaccgtatt gctgaggcaa 240  
gagatgatct ccacaggatg ctgaatgagg atgagctgcg caatgctgta ttgcttgttt 300  
ttgctaacaa gcaagatctt cccaatgcca tgaatgctgc tgaaataaca gattagcttg 360  
gtctacactc tctgcgtcag cgacactggt atatccagag tgcttgcgcc aca 413

<210> 4874  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-F1  
  
<400> 4874

ggtcacagaat acncgggtcg acgggtccgc aataaggctc ttcagcttgc atcttcgaca 60  
cggacatctt atctccgtct cgttcttttg aagcatctcg gccttcgagg accttaaaaa 120  
cctattcacg atgccttcgg tcatcgtgcg gaccatggtc gcctgcgggg tagagcaaaa 180  
cgatatttta gaaccaaaca aaaatttggc atgaccttcc ctaaaaatag gaccaaaaag 240  
aatgcttaat gccaaaattc tcgccgaaac ggaaatgaat caacattccg gcaaaaatatt 300  
ggcaactatc gcatatcaaa taccggtaca cctccaaaca caaacacata tgcaacacca 360  
caaacatatg caacaccaca nacatacata gatctagcta ggccgtaaaa agtgcattgt 420

cacattgttg taaggagaac aacetaaata tagctttccc cc

462

<210> 4875  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-003-Q1-E1-F11  
 <400> 4875

gtaccagtcc agaattcccg ggtcgactcg gcggaggacg cctgcttgac cagatgggcc 60  
 atgtttggga ctaggctccg tcgggctggt actgggaggc gctacctact gggggcgcac 120  
 cttgggtgagg agttagcctg tcattgaccc gaaccttctt tgggtggcggc tgcttgggcc 180  
 agtgacggtc cagaggcctt agcaccgccg ggaggtggta cgtcaccatg tcagcgagga 240  
 ggacgtgcac gtccgctcgt acttggttac gttggagcat aggttctcca atacctgnga 300  
 ggtttctcan ggatctcact ggagctatga tcctgtgatg gtctcttctc tttgggtgtc 360  
 aaacgccctt cgctanggtt ttagttgtat tagtgatgtt atatgtatga tactattcgg 420  
 gatgtattag tgataata 438

<210> 4876  
 <211> 301  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-F12  
 <400> 4876

attcccggtt cgacctctac agtcaacgtg caacgcatga tgggtgctat cgacaccgca 60  
 ggtgaccgct tcatcaactt cagccaattc agtctccttc tgcaactcca gcccggcgct 120  
 cataaatgac gtcgacatcg tcctctgagt cacttcattt cacctcagca gtccgatcca 180  
 tgagccgtct ccatcaactt ccggcttcat acatcaattt catgcaacta tctattccgg 240  
 tcacgatcca gcctcaactt cacctggcgc caggcctaaa tttgtttgat caattttttt 300  
 g 301

<210> 4877  
 <211> 465

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-F2  
 <400> 4877

gggccagaat atccgggtcg acggggtagc catgggacgac agccagtact ctttctccct 60  
 caccaccttc agcccatcgg ggaagctggt gcagattgaa catgcactca cagcggtcgg 120  
 atcaggccaa acctcccttg gcatcaaagc tgccaatggt gtagttatcg ccaccgagaa 180  
 gaaactgcct tctatttttag tggacgaaac atctgtgcaa aagattcagt cgttaactcc 240  
 aaatattgga gttgtctaca gtgggatggg tccagatttt cgtgttcttg tcagaaaaag 300  
 tcggaagcag gcacagcagt attatcgggt gtacaaggaa accatccctg tttaccagct 360  
 tgtccgagag actgctgctg ttatgcagga gttcactcaa tcctgggtggc gtaggacaat 420  
 ttggtgtatc actgttgatt gctggttatg atgacaatga cccgc 465

<210> 4878  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-F5  
 <400> 4878

gtaccgagtc aagaattccc gggccgacgg ggagaattaa aatagtagct gctattaata 60  
 atccgtggta cgatgaagaa aaaaataaaa aagaaaaatg gatgatcaac gatcttagca 120  
 caaggaataa aaaatgatga tcaacgacct tagcggcatt gaataaaaga gaagagagaa 180  
 aaaaagact tacttctactg gttagctaga ccaatgaacg ctttttttcc tcggcagacc 240  
 tgataggcca agcttagcta ggataagctg gctcatttct gcgtcgtggg agtcgcctca 300  
 gcaaactcga tcgaccagcg accaactagc atggctggtc cgcgaatgcc tcctaagccg 360  
 atacagagct cagtaacggg ctaattaagc tggccagatt gcttgcacgg gagcgatgtg 420  
 ggactacaca 430

<210> 4879  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-F6

<400> 4879

aattcgcggg tcgacgggca tgccaagttg ttttgggctt tgctacaagt ttgttttttt 60  
tggtgttttc tgagtcaaaa agggcgataa atggctcttga taggcgaggg aggctccatc 120  
tgagagcacg ttgtttctcg atatccttga agtggcccaa ttttttttcc atggccttgt 180  
ctgaccaatt caaggtacca tgccaagttg ttttgatgtt caatgaattt tgcattttct 240  
cgagttttct cagtcaaaaa ggttgataaa tggctggaca tgtcacaact tgcgtatggg 300  
gacaaaaatt gttcaaact gacatggatg cctaccattg gcatgcccac ccaattgcat 360  
aagttggggg catttcaagg atgtacaatc atagaccata ctgaatggat ggtgttc 417

<210> 4880

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-F8

<400> 4880

agtacggtca agaattcccg ggtcgacggg tacatcaaga ccctcgccca ggtcgtcgga 60  
agtgaagacg aagcaaggat gaagatctac tctgtgtcaa ctaggcatta ttttgctttt 120  
ggtgccctag tatctgagga actctcctac aaactcaaag agttgcctaa agtccgttgg 180  
gtttcttctg attcatacct ggatgtcaga aataaggact atggaggaga accatttata 240  
gatggacaag ctgttcctta cgaccccaaa taccatgagg agtgggtgag aaacaatgcc 300  
cgtgccaatg aaagatcccg gcgcaatgac aggcctcgca actttgacag gtcgaggaac 360  
tttgaaagga gaaggagaa cacacaggcc taccagagtg ggctccaaa ccaaatgcca 420  
ccccaagatg ctggctctcc aattcgcggg gcacagggcc cgccgccgcc t 471

<210> 4881

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-F9

<400> 4881

gtaccagtcc agaattcccg ggtcgacggg atcgaagacg aaggagtagt gtagttagct 60  
cagctgtgtt catctgcctc tgttgcagaa ctgaattcct gctcgtatgg ttggactgat 120  
ggatcagggg ttagtaatc cttgtttttc gaatctatag aggttggatt acctgattgt 180  
tcttggcaaa caacatttat ccgccttctt cagtcaaaaa tacgtcggga acaggtaaaa 240  
acaggcaaaa taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
agaaaaaaaa aaaaataaaa aaaaaaaaaa aaaaaaaaaa aaaacaaaaa caaaaaacaa 360  
aaaaaaaaaa aaaaaaaaaa aaaaaaactc ctctaaa 397

<210> 4882  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-G1  
<400> 4882

ggtccagaat acncgggtcg acgggtatcc ccctaggagc atgcgcgtag tacttgattt 60  
ttgatgactt ctaaattttt gcaataagta tatgagttct tttgactaat gttgagtcca 120  
tggattatac gcactctcac ctttcgcctt ttgctagcct cttcgggtacc gtgcattgcc 180  
ctttctcacc ttgagagttg gtgcaaactt caccgggtgca tccaaacccc gtgatacgat 240  
acgctctatc acacatgaac ctccttatat cttcctcaaa acagccacca tacctaccta 300  
ttatggcatt tccatagcca ttccgagata tattgccatg caacttccat catcatcatc 360  
acgacataca ttacttttgt catattgcca ttgcatgac atgtagttga catttgtatt 420  
tgtggtaang ggcacacgca tttatttttc atacatgtc 459

<210> 4883  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-G10  
<400> 4883

tacaagtcta gaattcccg gtcgacgggg aggaagagcc cgaggaggag ctaggaactg 60

aatatctggt gcagccgctt ggccgtgctg aagacgaaga gcattccagt gacttcgagc 120  
cagaagaaaa tggatgatggt gctgaggacg aggagattga ggatgacgat gctgaggatg 180  
gtgaggatcc tgtcaaggcg caatcctcat caaagaggaa gaggtctggt ggggaggatg 240  
aagatgatga cgacggtgat gatgatggtg atgatgatga gaagcctcca tcaaagcgat 300  
agtcaatttg ttcgtgctga tctgtgatct tctctgcttg ggccaagaag gaaaataatc 360  
ctcatggaga ggattgttgg taaatgctgt agcttttagga catctgtggt aggtgtagca 420  
gctcaaactt gagtctaccc at 442

<210> 4884  
<211> 154  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-G2  
<400> 4884

gggtcgacgg gctagctttc ggcttcacct agtctgaggt acacatccg atgacccggc 60  
agtaacaatc gcagaggtgc tccctttatg ccctagccga actaatggga acgtagggca 120  
taagcacagg agccatgcaa ccaactttgg caaa 154

<210> 4885  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-003-Q1-E1-G5  
<400> 4885

ggtagcaggt ccagaattcc cgggtcgacg ggcgtaccaa ggagatgcag agccgtgcca 60  
cggctctcct ttggcacgcc ggctccacca tcgcctatgt cgttgacgac ctctcgatc 120  
cttcgacggg gagctatagc ctgctgtgga gcggcaggat gcagctggtc ggcacgtgca 180  
acggcctgct atgcctctgc gacgacggcg gcagcatcac cctggtcaac gcagcaacaa 240  
gggagacgct gcctgtccca cggcgggccgc catgcgccgg ccaactattc ggcgaggaca 300  
ggaggtggca caggagtagc aacttcgctg accatccgac aacggggcgc tacaaggtgg 360  
tgcacgtccc ctgcagcttc aaccgggtcc gcgacgggt acacgtgctc acgctagggg 420

aggaggcgtg gcgagaggtg ccagcccccg g

451

<210> 4886  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-003-Q1-E1-G6  
  
<400> 4886

aattcncggg tcgacgggga atgcggttac attgctgcta atctttatgc caagagtgtg 60  
ttcggagaag atgctttggt gaacatcagc attgagaagc aagtcgatgg caagcttagt 120  
ggtcacatca gaataaggag caagacacaa ggaatcgcg cttagcttggg agataagatt 180  
accctcaagc agaagggagg cagttaattc tgatgttgcc tgctcacaaa caccggattg 240  
tatgacatgt tttcttcaag agatccactt gccagtgtca tactagagggc acaatgggat 300  
tgattgaatt aattacagga agcttttgtg tacaaaatat caaagagaag aatgataaaa 360  
gaagaggatc gtagggaagt tagtcttggg agctgaaaaa cgatcttgac acttcctttc 420  
g 421

<210> 4887  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-G9  
  
<400> 4887

gtaccagatc cagaattccc gggtcgacgg gagaacaggt gctggatcga atcaagaatg 60  
atctcattga ttggacgttg gcaggcaagc ataaggtggc cctaattgatc cacagaccta 120  
gggaaccaga ttaatttttg tgctgttggg aggctagtaa tggggttcag actgtaattc 180  
ggtggctgga tactagcttt gtatcctggg taacttgcta gttgctatac ccctgtaaaa 240  
ctcttttcta atttcaatga aatgctgcat catgcagtct tttcgtcaaa aaaaaaaca 300  
aaataaaaaa gaacaaaaaa taaagaaaaa aaaaaaaaag acaaaattaa aatgaataca 360  
ccctaaaaaa caaataaata caaatcaaa aaactacaaa aaatgacccc aaactttaaa 420  
ttaaaaaaaa actgcggccc cccca 445

<210> 4888  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-003-Q1-E1-H10  
  
 <400> 4888

```

aattcccggtg tcgacgggta tgatgagaaa ttatctggtg tttgttaacc cggcctggct   60
ttggacaata agtcgccagt atctatttgg attgcgccct tggaatcatg cgcttataaa  120
tcattgggta tattgttcaa atctttaata gccaacatgg ctggattttt attatgggta  180
tcaataacca gtattatgat taaggttttc aaagtcgctt taacgcaatg gatatcgatat  240
tatcaatgga tatgatttat tctacagttg aaggaatagt cccaagttgc tgcaggctta  300
cgacccggca cttggggggct acattatttc aagttgagat tacatcaaat atgcaagtct  360
catgtcactg caagcatgca ccatgacact tgggggctaa tgcaaagtca ttttttgc   418
  
```

<210> 4889  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-003-Q1-E1-H11  
  
 <400> 4889

```

gtaccagtc agaatcccg ggtcgacggg tcagatgaga ttgtccgggt ggaaagcccg   60
cttgacatga aaatagtaga cctggtgatt ttgggcaaac tagtgaattg agatagctgt  120
gcaggcgaga tcagttaacc tggtaagcgt cctagcccgc ataattagac aaaataggtg  180
ttttttggtc aacttagcaa aattagatct ctgacangtc agatagattg ttcttaatcc  240
cacttgctca gtattatgtg aactattgga ccacgttgta gatattcgta aatgctgtcc  300
ggagatatac tcgtccactc gggaaaaaaaa annaaaaaaaa aaaaaaaaaa aaaaaaaaaa  360
aaaaaaaaaa caaaaag                                     377
  
```

<210> 4890  
 <211> 397  
 <212> DNA



<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-003-Q1-E1-H2

<400>      4890

gggtcgacgg gtgatctgtt caagagcccg tctgttggtg ctgctgacct caggcaagaa    60  
atggtggact acgttacaca aagaagtga aacgttcata ctgatactct cattgaatcg    120  
gaggtggaac aaaacgctga gaatcaaata ccagatgacc cttatgaggt catatcaatc    180  
ttcatggatg atttcagtcg cacgaagagg aacatcattg gccatgtctc tgggtgggtg    240  
ttgagcgaca gccgcgaaga taagatcgat gattttgtcc aggaaatgga tatgacccgc    300  
ttctggccac tagaaaggag agaagggatc gccgaggtcc tctcaagaa tgtggacatt    360  
aaaactaagt ttcactgccc tgagaaatat gaaaacg                                397

<210>      4891

<211>      430

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-003-Q1-E1-H3

<400>      4891

gggtcgacgg ggtgaacgtg gtcaccgaag tttgggctgt taaggataaa atcaagcaat    60  
ttccctgaaa acttcaaaaa ttggtcaatg gtttggggca ccgggaaaac ctttgcaaat    120  
ggtggcccaa tttggaattg ggggaacctc ccttggcctc cggtttgtgc aaacgggtccc    180  
caaaactgac caaaaagcac aaaatgtgcc aaaaggcgac aactgagatt ttcttgcaat    240  
gttgatccag ttgatggtgc acggggcatc caagatttag accctgcaac tactcttgtt    300  
gtggttgtct caaagaactt cacgacagct gaaacaatgt tgaatgctcg aactatcaaa    360  
gagtggattg tctctgctct tggacctcag gctgtntcca aacacatgat tgctgtcagt    420  
actaatctta    430

<210>      4892

<211>      440

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-003-Q1-E1-H7

[illegible]

```

<210>      4893
<211>      466
<212>      DNA
<213>      Triticum aestivum

<223>      unsure at all n locations
<223>      Clone ID: LIB104-003-Q1-E1-H8

```

attcncgggt	cgacgggggt	catgtgatta	ggcatgatgc	aaagaagcct	gctggggcag	60
ccaaggaaat	agagagttaa	tttgactgct	cagcttcaga	tcttgtgctg	gttggtgata	120
gatactttac	tgatgttata	tatggaaaata	ggaatggttt	tcttactgta	tttacagaac	180
cattgagttt	tgtcggtgaa	tcttacattg	tcagaaaggt	tagaaaactg	gaagcgtaca	240
ttatcaatta	ttggtacaag	aaagggcaca	gaccactcaa	gcaccctttg	ctccctgatg	300
caagaacgat	tgtgaagttt	gatccgtgtg	aaggcccagt	ctcacctaga	gcatagcaca	360
gtcatgtact	ccctccgttc	ggaattactt	gtcacagaaa	tgggtgtaac	caaaatgtat	420
taaagttata	gatacatcaa	tttccgagac	aagtaattcc	gaacgg		466

2182

<400> 4894

gtaccgagtc cagaattccc gggtcgacat catgcgtaag cacgggatgc acgccaccgt 60

cagttcgatt cacgtcaacg gctgggttcgg caagcacgac aagctgagcg ccagcgtgtc 120

gctcgcgcg cgcgcattcg gtctcgacct gcatgccgag cgcgaacgct ggggtgttcgt 180

gggagactcc gccaacgatg cggcaatgtt cgagttcttc ccgctctcgg tgggtgtggc 240

caatgtgctg gacgtgatcg atacgctgcc cgtgcccccc gcgtacctca ccgaggccga 300

aggcggcggc ggttttgccg aagtcgccga gcgcatactg gaagcgcgtt ccctagccct 360

ccccgcgccc cgcgactgac acggcattcc tgcaccgcaa cacgcgctgg agaccagcg 420

tcgcttgccc ca 432

<210> 4895

<211> 367

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-004-Q1-E1-A2

<400> 4895

cgggtccagaa ttncggggtc gacgggggacc actaagaaca gcaactacac acatacagac 60

acagcgggagc tctatttgat tcaatcttag gtacgcctgc atgatagggt catcctctac 120

gatactgaca gctaaattca attcagtggt cgtcgtttga gaaatttggt actggaagat 180

ccctgtgggt atgcaaattg ggccccttgc agcaaactctg cctttcacca tctaggataa 240

tagccaagag gacagcatgt ataggtcttc ccaccagttg cacagccaga atgagtaatg 300

ggattcacca tgtagcggca catttagcac ggctcgtggt ctagttaacc gcatcgtgac 360

tgcaaca 367

<210> 4896

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-004-Q1-E1-A4

<400> 4896



caagctggtg gaaagtaaga ggtttgagcc aagctattct cagaataaag cttagaccg 120  
accttggtgt tggttggtat tgtaataaga agaaaataaa gaggcataaa aagatgttat 180  
ctaccacata tggatgaactt ggatgcagtt taccacatct tttcggtctt gaagatcaat 240  
gcatcaatat agatgtcatg tatttatcat tataatcatg ttgttcggg aatattggtt 300  
cttgatatta gtcattgatg gcaacagatt gaaactatta ctcaaaagta caagcatata 360  
tcatgtcgtc gccaaatgtc atgcgtatac ccattttggc tgtgccgtaa agtttccttt 420  
gttacattca cggatgaaat aaagtttggt tt 452

<210> 4899  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-B6  
<400> 4899

gtaccgatct agaattcccg ggtcgacggg ctatgcgctt ttctatcaat tgctcgacag 60  
taatttggtc acccaccgta atactaatgc tatcttgaga gaagccacta gtgaaaccta 120  
tgcccccggt gtctatctct tatcatattt gctttctatc tacttttatt tgcattctta 180  
ctttttgcat ctatattata aaatacaaaa aatatatcta tcttatcata ctatctttat 240  
tagatctcac tttcgctagt ggccgtgaag ggattgacaa cccctttatt gcgttggttg 300  
cgatttctca gtttggttgt gtangtgcgt gggacttttg aggagcctcc tactggattg 360  
ataccttggt tctcaaaaac tgagggaat acttacgcta ctattgctgc atcacctct 420  
cctctt 426

<210> 4900  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-B7  
<400> 4900

gtaccagtca agaattcccg ggccgacggg tccttggacg ccaccccttg ctcctatata 60

agtagatcca tctagtagct ttttcctggg gatttggtta gttaaaagtt agccattgca 120  
 acttcgtgta cttcgtttgt gtccaacgac cagaccaaga cgccttacgg atccccacct 180  
 ttatcaatac ttcatatata ctgcgaatat tcggattgct tttatcatat tcttgcttgt 240  
 tcttcgattg cttgcaggaa tagaccttcg tggtcagggtt gattgtgctc cggcgtggtc 300  
 aataacctct cgggggttggg ttagcgattg ctaaggcaca acgtcgtgca cgttttagt 360  
 cggatcgta aagtcattct caccaaatcg atagttatca tcccatcgaa agatcgggac 420  
 acctcgctc tatca 435

<210> 4901  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-B8

<400> 4901

taccagtcca gaattcgagg gtcgacgggg ttgatcataa gtttttgctt cttcacatga 60  
 tgtttgccat tcttagaatg ccattttatt ttgctttgct tgctgtttga ataaaatacc 120  
 aagatctgaa attattaaat gttagagatt cttcgcatag ttgcataatt attcgactac 180  
 tcattgatct tcaattatat ctttcggagt agtttgcatt ttgctctagt acttcactta 240  
 tatcttttag agcatgggtg tagttttatt ttgaataaat agatgaactc tcatgcttca 300  
 cttatattat ttgagagtc ttaaatagca tggtaaattg cttaaaatcc taagatgtta 360  
 ggtatacaag attagtaaaa aacttcctat gagggtttc aatactaaga gaagtctgat 420  
 gcatgatgat tgttttgaga catggaggta ataata 456

<210> 4902  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C5

<400> 4902

gtaccagtca agaattcccg ggtcgacctc cgcggacgag gtgcagcgca tgatggcaga 60  
 gatcgacacc gacggtgacg gcttcacga cttcagcgag ttcattctct tctgcaacgc 120

caacccgggg ctcatgaagg acgtcgccaa ggtcttctga atcagttcat ttcacctcag 180  
 ccgtccgttc caggagccga tccatctacg tacggcttcg tatatcaatt tcatgcaact 240  
 acctactccg gtcccgatcc agcctcagct tcacctgagg ccggccctaa atttgtttga 300  
 tcaattcttt tgctactagt agtaactagt gatgatcact gttgcatcat ttatttat 360  
 attttatata tcatcacaag tttcctgtga ttcttttctt tctatacctt tttgt 415

<210> 4903  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C6

<400> 4903

taccagtcaa gaatgcccg gtcgacggg cagcaaacag atgcgctacc cacgattagc 60  
 agacagggtc atatgcatgc tccaacttga tcaaggagga gagctacaca tgttttatgt 120  
 tattttacct aagatagagc agcagcagtg attagctagc tagaaatgag tttgaggatg 180  
 atgatgtgct acgctattac tatgatgata aaatagcgag tgttggtagt aatgactatg 240  
 atgattatta ttagctagtg ttagtggtga ttaaataaat attgttgatg gtaatggcta 300  
 tgatgatgat taaatagctt gtgctggcgc attagattca agtggaggta acatgtggtg 360  
 cacattgaaa gtactactag tccaaactga tcacgtttgg attagtagta tacttttgac 420  
 atgcaccaca tattgcctcc acttgaacct aatccacctt ca 462

<210> 4904  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C7

<400> 4904

gtaccgagtc agaattcccg ggtcgacggg aacggcttca tgcaagtctg atcgattcga 60  
 agcagggtga gttcagttca gctagaggaa gacgaaggcg tttcgatcag tccgatctcc 120  
 tgctcctttt acatgatgat tactattatc ttaatcttag tgcagtgtga tgtaatatgc 180  
 accatgaatt ggtagtgcag tgcagtgcag cacagcacat ctctgaacct gggaaggtag 240

tactagcttt cttttcactc agacaagtcg ggaggggggtt tcttgtcagt tagtcggttt 300  
 ctggcttgtc agttactgtg gtgcgtgtcg tgtggatcga gttagttgta ctaccagaaa 360  
 ttcgggatga caggaacca tgcatt 385

<210> 4905  
 <211> 219  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C8

<400> 4905

gtaccagtca agaattcccg ggtcgacggg gaacgccagg agtttctgag tcgagccaag 60  
 gatggatgct tgagccaagt gtggttgtgt gtaattatgg tccttatgtc gacgtgttaa 120  
 ttgtcgtgat ttgccgattg gtactctata tgtttgcaa ataagctgtg caccgtgtgc 180  
 acctttggaa cagtgaagta gtaattattt tgtgagctt 219

<210> 4906  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D10

<400> 4906

gggtcgaccg ggagatcact gcacggtgat cccagggaa aacttggcgc tgggcaagga 60  
 ggaggtggtg gccttctgcc ggaagaacct ggcggcgttc aaggtgcca agaaggtgta 120  
 catcgccgcc gacctgcca agacggccac cggcaagatc cagcgccgca tcgtcgcgca 180  
 gcacttcttc gtcgtgcccg ccgcgcgcgc caaggcctat aagagctcgt cggtcggtcg 240  
 atcgatcacg tcgccgtctt ttgtcccttt tttttacgtg ccagacagaa caggggattg 300  
 ataatgaaat tgcgcgccac atgacattgg agagcggtaa aagttgtggt tgatttgatt 360  
 gatgaagatt aaaaaaagac aaccaacaaa aaacaaaa 398

<210> 4907  
 <211> 329  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-004-Q1-E1-D5

<400> 4907

gtaccagtca agaattcccg ggtcgacggg gaagacgagg acgaagaata agactaggaa 60  
gaagaagacg acgaatatga ctaggatgac gatgatgaag aatactatga ctaagaagaa 120  
gaagtagatt atgaagagga ggaatatgaa gaataagatt gagattaaga agatgaatat 180  
taataattat tcgaagatta tgaagaagaa taagaagaag aagatgatga tgaagtagat 240  
cgaatatcaa gacgactgat aataataata atgagaagat cgtgacttcg aagatgaaga 300  
cgaagattag gattgataag aagacgaac 329

<210> 4908

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D7

<400> 4908

gtaccagtcc agaattcccg ggtcgacggg gacctgaaga agttcaggaa gatggcgctc 60  
ggcaccagca gcttccagag cagccagcta acaccgtcca gcggcgagca cgagcaggag 120  
caccagaacc cgtccgtccc gagcagcgac ggccatcagc agacgcagga ggtggagttg 180  
gggactagta cgaagcgaga cgacggcgac gtcgagagcc aggcttccat gagatgacca 240  
ctttcccttt ccttggagag agttaacctc aggacatcat ttgtaaatcc acagcatagc 300  
tgaattcaca taagctgccg gctgacttgg ttgcaacgaa caaaaatgat attttgttct 360  
tgagatatat atatatagtt cttttgttag acac 394

<210> 4909

<211> 371

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-004-Q1-E1-E1

<400> 4909

gggtcgaccg ggcattccag ttgaggggtcc ctacaagcct gcggcgtagc ggtactatgg 60  
tgtttgtcca gcatgactag cggtctggcct gagcctgagc ggcggcactc tgccacggcg 120

acctatgaac ctgttttcct ttgcattgtc tatctagatc taggcatgtg ttcacttagg 180  
 ccgaggattt gtcattggta tgtttttaga tcggtgaggg tgtggtggac ggaggtggcg 240  
 tttgcttttg ccagaaata atggtgttat tattttggat ttaaagagg aggtgtgatt 300  
 tgacggatat agtgttgcc ttttgattct acatgtctga tgctccctac gccacaattt 360  
 actanggatg c 371

<210> 4910  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E5

<400> 4910

ggtaccagtc aagaattccc gggtcgacgg gtggagcgag aagctgaagc ggagctccgc 60  
 cggcgagcag aagtgggggc tgttcatcgc gaccaagtga tctggccgct gagcagcgac 120  
 gccatggacg cgatgattcg ggagcagagc agcttctgtt aagaaataaa taaagaggat 180  
 cgggtgctga caatgttggt gccgtgtgtt ggggtgtgatt gtttgtttgt tgcagtggct 240  
 gcattcactg gctgggcacc aggatctata agataatgtg tacgtacgta cgtactgtat 300  
 tcctgaactt gtactgtgac gagcgagact cgctttgtaa cgtgctattc tgttgccaaa 360  
 aaaaaaaaaa aaaaaaaaaa aaaaaaagcg gccgctct 398

<210> 4911  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E6

<400> 4911

aattccccggg tcgacgggaa gggggttgac aacaaggggt ggctgcgtgg caacgcaaag 60  
 ctaccaaaagc aggttcctgc tactgaggag cagaagtggc tcattgagcc cacgggaaaa 120  
 gagtaagtgg ttcattatct tgcttgtcac atgcttattc cggttgttat ttattttgct 180  
 tgtcacatgc taatagttca ttcttttgca gaaactggat atattctaaa ggggtccgta 240  
 ttcccaacgg cctcatcacc gtcttctgta agttatattg gccgggggttg tactgtccgg 300

attcagtcag gcagctggac tgtcggggttt tggccacgag ctgggaacac tgggaagcgg 360  
 cccgccacgc agaacatgag aaccatgccca aggccgtgat cactac 406

<210> 4912  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-F2

<400> 4912

ggtccagaat tencgggtcg acgggcgcgg ggtaaaaatg gatctgggag ccctgccatc 60  
 ctatttatag acagggtaaa tacccaagca tcacgggtcaa accctaggtg gcgtagtaac 120  
 tttttgctaa gaaggcgctt cggttctctc tttgacgtga tttggcctag attgggagta 180  
 ccaaaagaga acggggcaaaa ataaaagata agtatgaaag aagtattcat gaccagtga 240  
 atggccgaga ggtggaataa gagacatctt agctcgaagc atggggcaaaa gctgactctt 300  
 gctggtgaga cccgtatttt ggtccttgat acttttaact gactctcatt ttcagggaaa 360  
 gcttagcagg aataaatcca atctaacttg aggataatg ttggggatac tccccacggg 420  
 cgagacatan agatctatat attggaagcc tatgtttgga catcagaatg g 471

<210> 4913  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-F3

<400> 4913

cgggtcgacc gggagatatg aggatggtga tattagagtc atgctagtgg agtaattatg 60  
 aatttgagga atacttgtgt ggaagtgtgt gattcccgta gcatgcacgt atggtgaacc 120  
 gctttgtgat gaagttggag cataatttat ttattgattg tcttccttat gagtggcggt 180  
 cggggacgag cgatggtctt ttctaccaa tctatcccc tatgagcatg cgcgtagtac 240  
 tttgttttca atggcttgta gatttttgca ataagtatat gacttcttta tgactactgt 300  
 tgagtcgctg gagtatacgc acgctcacc ttccaccatt gctagcctct cttgtgccgc 360

gcaacttttcg ccgggtacat acaccaccca tataccttcc tcaaaacagc caccgtacct 420  
acctattagg gcatttccat agccatt 447

<210> 4914  
<211> 295  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-F5  
  
<400> 4914

taccgagtcc agaattccgg gtcgacggat gagtataagc ggggatcata tgtgtacttt 60  
gattttcatc tcgcagatga cggcaatggg tggtgccaaa ggatcaagaa cgacttcaca 120  
tttgagtaca acttccttga ggatgaactg tcagtacagc catactaagg caccattgcg 180  
gatcaccgtg ttcgatcaaa tacgactcgt gtaattttca caatggaact gctggtatcc 240  
ggaaccaatt cgaactccac aattgtaagt tgtaacctg ttggctaatt tacat 295

<210> 4915  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-F7  
  
<400> 4915

gtaccagtcc agaattcccg ggtcgacggg aatgtggaga gggtcaagct gcaaggagca 60  
tgcggggtgt gcccagctc ggtgatgacc atgaggatgg gcattcagcg gcgtttgatg 120  
gatgaaatac cagagattgc tgcagttgaa gctatcacgg acaaggacgc tgggcttaag 180  
ctgaacgaag agaatgttga gaaggctact gatgagatca ggccatacct caccggtgca 240  
ggaggcggtg atctcaggtt tgtcgcatc aacaaattct tcgtgaaagt ccaactcaag 300  
ggccctgcag caagtgtggc ggccgtccga gttgctatag cacagaagct caaagagaag 360  
atcccatcca tcgcagctgt ccggetactg ccgtaaactt caactgcana acattgctgt 420  
gaatatctgg ttatccagga gaatgctatg aatgcgctaa ctga 464

<210> 4916  
<211> 461

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-F8

<400> 4916

tctagaattc ccgggtcgac ggggggggttc agcgcggtgc cgtacgtggt ggcgctcttc 60  
agctgcatgc tgtggatctt ctacgcgctg gtcaagacca actccagccc gctgctcacc 120  
atcaacgcct tcggctgcgt cgctcgagggc ttctacatcc tgctctacgt ggtgtacgcg 180  
cccagggccg ccaggcaccg cgccctcgcc ttcttctctc tctctgacgt cgccgccttc 240  
gccctcattg tctccgtcac cgtgctcttc gtgccccagc ccagccgcgt caaggctctc 300  
ggcagcgctt gcctcgctt ctccatggcc gtcttcgtcg ccccgctcag cgtcatcttc 360  
gtggtgatta agaccaagag cgccgagtag atgcccttct cgctctcctt cgtcctcacc 420  
ctcagcgccg tcgcctggtt cttctacggc ctcttcacca a 461

<210> 4917  
<211> 469  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-G1

<400> 4917

gtaccggtcc agaattcccg ggctcgacaac atggaggcga gtcaccggcg agttgtgtca 60  
tcggtggcga gcatggaggc gagtcaccgg cgagttgcgg caccggtggc aaacatgcgg 120  
cagcgagcgt gccacggcgg tcgctcgtg gtgaaggcgc gggagggtgtg gctctcatcg 180  
aggccaacga cgacgacggc agtcggcgtg acaagatggc atttgcggcc gtctgcgtgt 240  
tgcatcgatg acgtgaacaa tcattggctt caagagagaa ataagttaac aagattaggg 300  
agggtgaatg tagaactaat cttgttatta gtgcgtacga ttagatatgt ttatatcatg 360  
cttgtagttg agctgcggct gtgtgcacac gtcaggttgt gttcagtgcg caaggcanag 420  
ctaattatgc atggtagtta gatgcatgcg ttaaagctcc gcgagtcgg 469

<210> 4918  
<211> 437  
<212> DNA



<400> 4920

gtaccagtcc agaattcncg ggtcgacggg gaagaagaag atcaaaagag agatcaaaat 60  
 actacagaat ctctgtggag gtccaaatat tgtgaagctg cttgatattg tcagggatca 120  
 gcattcaaaa acaccaagct tgatctttga atacatcaat aacacagatt tcaaagtgc 180  
 atatccgaca ttgacagatt atgacattcg ctactatata tatgagttac tgaaggcttt 240  
 ggattactgc cattcacaag gcattatgca ccgagatgtg aagcctcaca atgttatgat 300  
 agatcatgag ctctgaaaac tccggttaat agactggggc cttgctgaat tctaccatcc 360  
 tggaaaggag tataacgttc gtgttgcatc aagggtacttc aaggggacctg agcttcttgt 420  
 tgactttcaa gattacgact actctttgga catgtgg 457

<210> 4921

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-004-Q1-E1-H3

<400> 4921

ccgggtcgac gggaagatgg acgccttcta ctgcacctcg tcggcgggcg caaccggctg 60  
 gggctacaac tccctcaaga acttccgcga gatctcccc gccgtgcagt cccacctcaa 120  
 gctcgtttac ctgacctat gctttgccct ggctcatct gccgtgggtg cttacctgca 180  
 cattgcctg aacatcggtg ggatgctgac aatgctcgcg tgtgttgga ccatcgctg 240  
 gatgttctct gtgccagtct atgaggagag gaagaggttt gggctgctga tgggtgcagc 300  
 cctctggaa ggggcttcgg ttggacctct gattgagctt gccatagact tttgaccaag 360  
 tatectctg acagggtttg tcggaaccng catcgcttc ggggtgcttct ctggcgccgc 420  
 catcatcgct aagcgcaggg agtacctgta 450

<210> 4922

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-H5

<400> 4922  
 gtaccgagtc aggaattccg ggtcgacggg tggactactc gtagctaccc gaaccgcaac 60  
 tcaaagaatt ctgacaagac atccatcttc cttgatacgg acgctccacc actagggAAC 120  
 ctggaggtaa agagaataat aaagaaacag agctcgcatg aatgtatttt ttccttactt 180  
 ctacgtatat cctgtacgca tgaaggacaa gcttgacgac gtgtcgccgt tcgtgcctat 240  
 gagccgcggt atggaacaac tcctagacga ggtgatggaa aacatggacc aagatgagcc 300  
 gtccaccaaaa tccgcacctc tggccaagtc tagttcggtg gcgatgcaca cgcgcccggc 360  
 aatgagtgat ccagctgcga attcttcaac tgtggcaggg agcaatctcg tcgcaaaacc 420  
 cgctccctg gtgaccaagc ccgctttctt taacacatca acaggca 467

<210> 4923  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-H6

<400> 4923  
 ttcccgggtc gacggggcggg taacttttagc aaagaacacc acaataagtg aagcgagaaa 60  
 atagatgacg acttaccaag tttgggggat tgtacacgga gaatccgtcc cgcggtttga 120  
 tatggaggaa gtctttctct tctcctttgt acaggtcgga tagtatactt gccagagcgg 180  
 tgggggagtc cggaccctta cggccacagc gcgtggcatc gtctgtcccg ttgtagtgcc 240  
 acatgggatt gctccgatat tgaagtgggt gcaactccccg cattatgcat attgccatca 300  
 cctcgactat cgtcagtcag gatttgcca gtaattttat cctgctcatc aggaaatgta 360  
 cttccttgca atcctcctct tgggggcctc gggggtgcca gcttagacgt gccctcggcg 420  
 ggggtgttaca gaacttgggg agtcctatcc ggact 455

<210> 4924  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-H7

<400> 4924



ggtaccgagt cagaattccc gggtcgacgg gtcattataa ggacatggtc tatcaacctg 60  
 gcgaaaaggc ttattcttcgc gttacaccaa tgaaggggtgc tcaccgcttc gggatcaagg 120  
 gcaaactagc tcctcgctat attggccctt tcaactattct ggaaaggcgt ggaaaagtgg 180  
 cttatcagct ggagcttccg ccgaaccttt ctcaggttca cgatgtgttc cacgtgtcac 240  
 aactccgacg ctgcttcaag gacccaatcc gagcagtggg ccatgaagtg ctccaattgc 300  
 aacaggacct ctctataaa gagcatccgg tccgcattct cgaccaagct gaacgccgca 360  
 cacgtcagaa ggcgatcaag ttctctaaag tccagtggtc gaatcactct gaagacgaag 420  
 ccacctgnga acgcgaggat cgtctacgag atgaatatcc cgcac 465

<210> 4925  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-H9  
 <400> 4925

ggtcgagaat acccgggtcg acgggagttg gaggagagga cgacanagat gatggaggag 60  
 gaaaggccac ggaatgacat gcaagcaagg gccatgtacg agtccttat ggtaagtttc 120  
 ttctgcagat tagccaaaac attcatgtag tgtttgtctc attactaagt agtatgactg 180  
 agtcgtcaaa accaaatgtg cagtctgtgt gcgagaagac aggtcagacc gctccgccga 240  
 tgccagtgat tgttcctggg accacggtga gttttatttg aatggaaatt acttgctagt 300  
 cttaacattt gagtgtcatc atgctaaca gacattggaa atgatacttg gtgcagcgta 360  
 actccagaca agcatcgcac gagccttctc cagcttacga catgagccac cccgctccta 420  
 cacctctgg atcttggtg 439

<210> 4926  
 <211> 253  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-A1  
 <400> 4926

tccctatagt gagtcgtatt aaatcgtgct ttgggctga tgcctgtgt ggagcaccac 60  
 cgcgccagaa aagcttaccg cactggacgc tgctcgacgg ctgaactaag tttagcattg 120  
 ttgaagcata tctagtcctc atccgtgact agtgtgcaag cagactgtgg cagtttggct 180  
 ccagttgtga aagtcatttt tgtttgtctg agacatcttg gaaagaacag tgtaggaatg 240  
 aagtatttct gtt 253

<210> 4927  
 <211> 228  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-A12  
 <400> 4927

ttccctaaag tgagtcgtag tattccttct aatttgcttt tactttttac tttgcatctc 60  
 tatactatca tatattattt atcatctcag tcagatctca ctttcgtacg ttaccgatat 120  
 tggattgaca acccctaagc acgttggttg cgtaaatcta ctgaactttg tgtacgtacg 180  
 agggactcca gcgttgccctc ctactgggtt gttactttgg ctcacaga 228

<210> 4928  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-A7  
 <400> 4928

aattccccggg tcgacgggta gagaaattgg aatacagtag tttaacacca atataaataa 60  
 agaatgagtt cattacagta cattaagta gtcttttggt ttctttctct aacggagctc 120  
 acgagatttc tatcgagttt tgtgttggtg agttttcaag ttttgggtga attcttttga 180  
 tggattatgg aacaaggagt ggaaagagcc taagcttggg gatgcccattg tcaccacaa 240  
 gataatccaa ggacaccaa aattcaaagc ttggggatgc cccggaaggc atccccctct 300  
 tcgtctactt ccatcggtaa ttacttga gctatatttt tattcaccac atgatatgtg 360  
 ttttgcttgg agcgtcttgt attatttgtg tctttgcttg ttaatttacc acaatcatcc 420  
 tttct 425

<210> 4929  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-005-Q1-E1-A9  
  
 <400> 4929

gtaccggtcc agaattcacg ggtcgactgg atcatgtcat gctaccaccc ggaatctggt 60  
 ggggttcgggg ggaacgtggg gcacgaccog catgtcctct acacgctcag cgccgtgcag 120  
 gtccctctgcc tcttcgatcg gctcgatggt catgatgcag acaaaattgc tgactatatt 180  
 actggacttc aaaatgagga tggatcattt tctggtgata tttgggggtga agttgatact 240  
 aggttctcgt acatttccat atgcaccttg tcattactgc atcgtctgca caaaattaat 300  
 gtggaaaatg ctgtacaata tattgttagc tgtaagaaca tggacggcgg atttgagct 360  
 atgccaggag gggagtctca cgctgggcag atattctgct gtggtggtgc tctcgcaatc 420

<210> 4930  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-005-Q1-E1-B3  
  
 <400> 4930

ggtctagaat taccgggtcg acgggatcat gtagctcatg ggaagtggga agaagcatta 60  
 gacattgatg cgacgctcta cactggtcct gttgtatggt agtcagtgtc aagtttctta 120  
 atgtcatttc atatatttat cctttccatt ttgagtcgct gaaactgctg agtgatgtgc 180  
 agtttgctct gttggctgct ctgtcacttt cacgtttcat attccttggt gtgtagttcc 240  
 tcatactgct ctttcttcct gagtctcgga aagaataata aagagccatg tgtaattcta 300  
 ttgcactgtt ctcccaaaat tgtcattatt ttaagcagta ataataataa taactctgta 360  
 ccaagtctca gtaatacctg aagttgatcg aatc 394

<210> 4931  
 <211> 252  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B5

<400> 4931

aattccccggg tcgacgggga acaaacttgg tctctgtgtg cttaggatgg agtccccgcat 60  
 ttgcttttgag aactgtaagc gtgtttaacc tgacagcgcc tgtaattgta ggccctttcc 120  
 gcataacttca cagcttggtg tcttatgagg tgctgcaggg cagcaggctg gtttatgccg 180  
 cctcggtcatt tattatcatt tgtaacttgt tagagtgcac attaattctca ggaggacata 240  
 gacataatac tt 252

<210> 4932

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B8

<400> 4932

attccccgggt cgacgggtag taccattagc tgagaaaact atggcgggac ccttggtgta 60  
 tcatcatctt gtactaccac cagccagcag taataaagtg gcgcctatga agaataaagg 120  
 ttgtgccatc tccaagaatt gttatccttg tatcatgttt gctgctgcaa tgcaatgcag 180  
 atgtagtggt aacttgccctg cttctttttc atgctcccat ccgtgcttcc tcatacatgg 240  
 cctcttgaaa gaaaataagc cccggtccca ttccctgaaa atcaggggat gattagatta 300  
 gaaaagaaaa agaaaaaaga acagccgtaa gatgaagtga gagcacggat gcatacatgg 360  
 cttgatttga ttggaagaaa ataaagtccg gcaacact 398

<210> 4933

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-C1

<400> 4933

gggtcgaccg gtggcagcgg cggagcgaag gtggaggctg ggatggaaca ggtgaagagc 60  
 gccttggaaga agctcatgga cggaggagcc gaaggggaag ataggattag gaaggttcag 120  
 gagctgaagg cgaaagcgaa ggctgctttg gagaacggcg ggctcgtcgtg catgaatctg 180

gacaagctgg tccaatccgt cgtctgaaaa ttagcgcagc atgtcggccc tgaataaatt 240  
 ctgctgcttt cgctcattga tgaacagatt ggggttgctt cttgcttgct tggaagatcg 300  
 agagtgaaaa acatatccta tgttgtaagt tgcaactgta tctcatgcc aactcagtcta 360  
 caagtctctt gttaggcgct gcctgcttcg taaaaaaga taacgaagct ggcagctgct 420  
 ctaacac 427

<210> 4934  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-C10  
 <400> 4934

gggtcgacgg cccaggggaa gatgatgctt atggggacga ccgcgctgat tacaggaaat 60  
 ctgaaccacac tacctacatc aatgctccct tggtaggggt tcttgcttac ttcggttgca 120  
 acccaaacc aggccatata agacactgag cataagcact ttgccatgta gatagagaag 180  
 agtgacagaa gctataaata ggtacacagg aagcaaata gcttgatgatt ggatggcact 240  
 acatgttcat aggagtggat tgcagagcat gtgttctacc aataatgaga gcttatcttt 300  
 catgatt 307

<210> 4935  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-C2  
 <400> 4935

gggtccagaat taccgggtcg acgggtgaca tagtcaacgg cgacggcggg agccgcgcca 60  
 ctgctgggtgc tggtaggtgc ggcggcgggt gtgggtggctg cggtaggtcgc gttccaccgg 120  
 aggccaaaccg cagaactcgt gtcgcccctt acccgcagcc ttcgcgaagg tgatggacgc 180  
 gccgggtgctc gtgacgtgca cgcaccgctg cgcttgtagg agagagatca gagcaagaag 240  
 agagcaacca gcgtgaaaaa aaacattagc aaatcagaat tgttgctcga tccccttggt 300  
 ggggtgggtta caacttagtg tttagatcat cgttgatgac aattgacgcc gtgatctgt 360

ttaattgtgt tcctttggct ggttgggtgct tcagtcgcag ccaagaattg gcgtgga 417

<210> 4936

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-005-Q1-E1-C6

<400> 4936

gtaccagtct agaattcccg ggtcgacggg gagcacaaga aggacggcga gcacaagaag. 60

gacgggggagc acaaggaggg catgatggag aagatcaagg acaagatcag cggcgacggc 120

cacggcgacg gcaagaagga cggcgaccac aaggagaaga aggacaagaa gaagaaggac 180

aagaagcacg gcgagggcca caaggacgac gacggccacg gcagcagcag cagcgacagc 240

gacagcgact gagccagctc cggcccgcgc tccggcagcg tgcaggcgag atcgatgatg 300

aacacttggg agaagtgtga cagacatata tggtgcaggg tttggagcgt gtggtagcat 360

atgtatgtaa tgcgtgacat gcctcatgga tcntgtgatg tataataatt agccggccgc 420

actgcactga acngtgcctt gtaataat 448

<210> 4937

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-C7

<400> 4937

aattcccggg ccgacggggc aggatataca tcgatgatgc aggatgggggt cctgaggccg 60

attcaattga gtatggttac cgggtcccct ttggcagcgt acatgtcttc atcggaaga 120

tcggtgagcc tgggactgag ccggacatct acaccgaccc cgtcgagacg gctcagcgtg 180

cgagatttac tcaggttaaa ccggccatga agtgtgcctt cgttggagtc atctacggag 240

gagagcgcgga ggacgaatca gagcacgaca acgagaccgt cgtctattct ggcgacgagt 300

cctcgaccgg agagaccgag tcgctatacc ggatgcaaga cgatcagggtt aggggttggt 360

ccgatggcga tagtattccg gacccccag gccagatcaa ccggg 405

<210> 4938  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D10

<400> 4938

cggtccagaa ttaccgggtc gacggggagc aggcgagcaa agcagagatg gaggcgttca 60  
 ggaagcaggc gagcaagttc aaggagcagg tcgccaaagca gcagcaggct gtgataaaac 120  
 aattcagcac tactggttac gagcgttcag attctgttgt cattgatgaa gttgaattac 180  
 agcaacatca aaggcttgag aaattgtaca gttctactcg ttctggaagg gatttccaaa 240  
 aggacatagt tcgagcagct gaaggcttgg tgtctattgg aagcaagcat attgaagtgg 300  
 gaacaaaatt ttctgaggat tgctatagat atggagggtga aaataatgct gatgggtgaag 360  
 ctcttcaaaa agccgcatca ctgtatggag gtgctttgag aaatgttgaa aaagagtatg 420  
 aagatttcaa tagaactt 438

<210> 4939  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D11

<400> 4939

gggtcgacgg gaaggcgaga cataagggcg ccccgctgaa ggcgttgatt cagagctccc 60  
 ccaactagaa acgaaaaata ttttaaatta gattgttttt ttgagacaat ctgcggaac 120  
 tttatttaaa ccaaaccaat gttcagaggt acaaaagaaa gatcaccagg gtgtcctaata 180  
 caaacatggc ggcccatcct taactttaaa ctatgcttcg ctagattatg agccttgaaa 240  
 ttcgaactcc taaactcata aacaaagcta catctactaa aagaagagtt ttgatctatt 300  
 atttcatgta agatcccaca tgctggcgtc caactgggct gaccattag cgtgaagttc 360  
 acacgtagtg cacagtagct actcgggtca tgctgattgg aaatatcact atag 414

<210> 4940  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-005-Q1-E1-D2

<400> 4940

gggccagaat atccggggtcg accgggaagg gtttctcatt taaatctatt tatatctatt 60  
tatatatcaa gtatactcca tatatagata tatgggtatgg aagcctatcc cccatataag 120  
ataagacggg gggataaaaa gaagggaaaa tgaaaatagt taattaagtt cagaatggta 180  
ttccataaag gaaaggaatt ccaatcaaaa caaaaaatac tgagtctctt aaacaagaca 240  
ttctaaaact taggtaattt atagtcatta ggatttttagt tctatatgaa gtaaggacta 300  
ttcgataatt tcttataaac ataggttttc attggaattc actcaatcag ttaattatgg 360  
aacaagagag ctgtttcatc tttgttttaa agaaatataa aaatgaatta tgaatagaaa 420  
gtanaatgat tcaacttttt tttt 444

<210> 4941  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D5

<400> 4941

aattcccggt cgcacggggt aggggtattac ctccatcgag agggcccgaa cctgggtaaa 60  
aacatcgtgt cccttgtctc ctgttaccat ccgcctagac gcacagttcg ggaccctac 120  
ccgagatccg ccggttttca caccgacaaa gatctaaaac ttattgatgt gtcccctatt 180  
aaatctttgt ttgcaatat gaatcttgat gaaactgaat atgatcttcc tttacctaga 240  
aggcattcta agaattcgga gtttctagat cttgatgatg aaattgatga aagtgggatt 300  
gaaaaacaat aaaaacctag atgttgctaa acccactatt ttggatctca aggaatttaa 360  
ttatgaaaat tgctctttga ttgggtgtat ttccttggtg caatccgtgc tagattctcc 420  
tc 422

<210> 4942  
<211> 455  
<212> DNA  
<213> Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB104-005-Q1-E1-D6

<400> 4942

gtaccagtcc agaattcncg ggtcgacggg gcgactaaag ggctggttct gctcgatgta 60  
ggcatctcga tgacgagggc gtggctgctg cgttcgttct gggccaacag gtaagtgtc 120  
tagcccatth agtgatccat aggtatatag gcttatcaga aatcccaggg tgggccgcgg 180  
cccaccctgg ccaccctgta gctccgcccc tgacgggata catgggtagg gacttcatgg 240  
aaggcggact ccatttaatc ctttctagct gcttactgaa caccaagccc tatttgatat 300  
gttgaatgat tgttatatag gtgaaggaat cgacgaagaa gcttccgttc agcatgctat 360  
gtcaatggaa gaatatctga agcagacctc tgctacttct ctattctctt tcattcgtcg 420  
tgggcagccg aattggttga aataattatg ggcag 455

<210> 4943  
<211> 312  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D7

<400> 4943

aattcccggg tcgacgggag acagtatgtt tgtcccaccg tgagaccaca tagaaacagt 60  
tgtgctagaa ctgatctaga taacatagca tttgggtctca atcagaggga gcagataaat 120  
gtgaaatatg gggcttgacg catcaatgcg atcaaaccct acgtagaatg acatgagact 180  
ctcatagctc gtcatacaag ctcaccacat cacagatcag aggacgtcat tgaacgaact 240  
gacaactgtg atggaacgag agttacccca tatgatcacc atgcataact tggtcattc 300  
accacgtgac at 312

<210> 4944  
<211> 429  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-005-Q1-E1-D8

<400> 4944

gtaccagtca agaattcccc ggtcgacggg gacaggaatt agaaaatgag atgtggagct 60  
ccatttttaa tccgctgctt tattttgttt tcatgaaatt aagaggcaac tttatattta 120  
tcctggctag gttggtttat tcagttgcta aaacgagaat gtacaactta gttatttttc 180  
tagatggcta gaaaatagtg gtatcaataa atcttattag gaatttccat catacttaat 240  
agacgtacaa acaatttgat tttttttttt gtgaagtaca cattgtttcc aatgtttgga 300  
ttaccgcccg tanatggggg gcctaccgt tggctcttga gaaaaaacga gacatttctt 360  
aactactctt tttgtagaac taattttgtg caatctttca tttttaaacg gaatgcatta 420  
cacattttg 429

<210> 4945  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-005-Q1-E1-E10  
  
<400> 4945

ggtccagaat tcacgggtcg acgggttaaa cttggatgat gacgggtgat atgatgagtc 60  
ggaggttagag cttgactctc tcggttcatt tttatacat ctcattgaca atgattgtta 120  
ttaggaggaa gccaaaggcca gccgtgcggg tgacgacgag gtaattgttc tttcctccgg 180  
ctcagagtct gtgccaaaac agaaaactcg tcaggcaagc cggaaagtaa ggttttctca 240  
tcctttggct tatttggatc ccaactttat tttgaaaaag cagcaacatg aagcttgccg 300  
cacgaccggg aatagggaaa gcgggatcct ttcctccggc ttaccgaaca cccagcccc 360  
tcacaaacgt cgtccagagg tctcaacaaa ctctgactta acttatccca aggccggtct 420  
nttacgacaa cctcttaacc ctttca 446

<210> 4946  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-005-Q1-E1-E11  
  
<400> 4946

ccggtccaga atttacgggt cgacggccaa gtcacacca aagaggttag caagggcaaa 60

ccactagatt ggatttcagg acaaccagtc gcagatgagc atgaacgcct ccagattata 120  
aagaatgatg acctcgaaga gtcceaagaa ctcggttctg gaacttttgg aactgtatat 180  
catggtaaatt ggaggggctc tgatgttgca ataaaaagaa tcaatgacag atgttttgct 240  
gggaagccat ctgagcaaga aaaaatgcgg aatgacttct ggaatgaagc atctaacctc 300  
gctgatctgc accaccccaa tgttgtggcc ttttacggcg ttgttctaga tgggcctggg 360  
ggatccattg caacggttac agaatatatg gttaatggct cacttaggac ggctttgctg 420  
a 421

<210> 4947  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-E5  
<400> 4947

attcccgggt cgacggggac tcgcaggtga tcaatcccca tcaactcgccg gcgattggtc 60  
tggacgcgac caatggcaga aaccgcatcg atagcaccac caccacaacc aatggcacca 120  
ccgaaccag tggaggacaa cgcaacggcg gcaccgtcac aaccaatggc accacctcaa 180  
ccattggcgg aaaacgcaac ggcagcacca ccgcaaccaa tggcgcgaaa gcgcatctgt 240  
cgttgtggtg gtgccaccac caccgccaga cggcaccacg acattcctct gcctcactct 300  
cgctttcttc atccctcccc tcggcgtttt cctcaagtac aaatgtgaga ttgaattctg 360  
gatctgcctc atcctaacat tcttggccta cgcgccgggc atcatctacg ccgtctgggt 420  
gatcctg 427

<210> 4948  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-E8  
<400> 4948

gtaccagtct agaattcccg ggtcgacggg tcaggggagg atgatgctta tggggacgac 60  
cgcgctgatt acaggaacc tgaaccact acctacatca atgctccctt ggtaggggtt 120

cttgccact tcgttggcaa cccaaaccca ggccatatca gacactgagc ataagcactt 180  
 tgccatgtag atagagaaga gtgacagaag ctataaatag gtacacagga agcaaataagg 240  
 tttgtgattg gatggcacta catgttcata ggagtggatt gcagagcatg tgttctacca 300  
 ataatgagag cttatctttc atgatttttc ttttgtttgg gtttgcactg aattttgttt 360  
 tgtgtgaagg tgtgcacagt gcagtttaac tgcactgggtg tagtcatgag tgaagaaagc 420  
 ttgcattttg cagaaatatt tggat 446

<210> 4949  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-F5  
 <400> 4949

ggtaccagtc aagaattccc gggtcgacgg ggaggacgat ccggagaccc aggaggcaga 60  
 gtgagctatg cgcgggcgaa ggggttttgg agaaatttcc agaattttgc ccgtgagtat 120  
 atatagccca accctgtcgg tgtgaccgag tggaacaact cgggtggcacc gagattcata 180  
 actgcaagca gttactgaaa cttggtgtga ccgaaagggtt caaatcgggt gcaccaagat 240  
 tgagaaccta gatcgactta gtgatctcgg tatgaocgaa ttggatgaat cggtcagacc 300  
 gataagcaca aagaagtttt ggaagtttaa gtctatgacg aatcggagac tccgagtgtt 360  
 cctcacacag agtggttcga atcttacttg atcaaatttt gtgatgtagc atgaatagag 420  
 tttgagac 428

<210> 4950  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-F7  
 <400> 4950

ggtaccagtc aagaattccc gggtcgacgg ggaagtgaac ggcgccgag gtggaagaag 60  
 ctctcagatg gatctccaag aagcatgcc aacgcacgag caacgtgatg cccctgggga 120  
 tatctttgggt gctgtccttg aggccgctgc ccaggcttat ggcaacgacg agagcatcga 180

ggtcatgctt gaagagcttg ccagtgaccc agagctcgt gatgagtaca tgaagcttct 240  
gctggagcag gtcggcgaga ggggtggagtc cgaatccgag gccaagacgc agtcgtgaag 300  
cgtggcccgg gagtcgggtcc ggtcgggtcaa gtgggcggta catttcaggc gcggcgtggt 360  
tgacaatgtg gtgaaaacat atatacagaa ctcatgactt gtggatgtaa ttgtgtctcc 420  
tgactgtgga tgggtattgt 439

<210> 4951  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-F8  
<400> 4951

ggtactagtc aagaattccc gggtcgacgg ggaagtacac tgcacatttc agaggccagt 60  
ctcacttctt cgggtaagta tatattgttg cattttcaca ttttccaaat taacaaacat 120  
gctctcatgc ttttgcttca taatttgcag atatgaagga agatgcgggc tccctaccaa 180  
ttttgattcc agctattgct atgcattagg ctatgggtgct ggtgctcttc tccaatttgg 240  
caagacagga cttatttctg cggtatgctc actatatttt tctacttgat agatgtttgg 300  
cattgcttaa ccatcggagt catatttact ctgtttacct cctaacttct gaccagttct 360  
ccatcatgcg aacattgtca tatgttctct tccagtttcc acgccatatt cattattgga 420  
taaaacatta aatttcacaa aacaaaca 448

<210> 4952  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-G5  
<400> 4952

attcccgggt cgacgggatg gccaaatata ctatgatata tcttttgaga atgggaccca 60  
gggtgtatta gatggattta tgattcagtt taacaagaac acatttgggtc ttgcagccgg 120  
tggaccactt caggttcctc cactccaacc tgggtcctca gccaggacgc tccatagctat 180  
ggttttctcc cagaatgtct cccctgtagc accaaacttg ctactgcagg ttgcagtga 240

gaataatcag caacctgtgt ggtatttcag tgacaaaggt tcgctccatg tcttctttgg 300  
 tgaagatggc aaaatggagc gaacgggttt tctcgaggcc tggaaatctt tacctgatga 360  
 caatgaattt tcagaagaat accccaattc tgtcatcagc agcatagatg ccaccgttga 420  
 acaccttgca gcatcaaatg 440

<210> 4953  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-G7  
 <400> 4953

attccccgggt cgacgggatg gtctatggcg actcttgctc gaactcgtgg gagcttttgc 60  
 tttgatcggg gtggaacatc ttcttcatct tgtccttctt cttggccttc ttcattgttg 120  
 acgttgctgt tctcttgctc tgggtggagaa ggagggttgtt gatgttcac tgggtgtact 180  
 tcctcatttt cttcgtcttg gtgtgtccca cttgtggatg cttccgtatt aactcttggt 240  
 tcaccttgct gtgaggtaga agcttccact tggacagacg aggtactctc cttcacctcc 300  
 gttggacgaa ccttgccaat agacaagtct tggattgctt ctgaagggtc tttgtctcct 360  
 acatcaattg gcaattgctc tatttgcgag cgttagatt cgtcaaactt cacatctact 420  
 gtct 424

<210> 4954  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-005-Q1-E1-H5  
 <400> 4954

attccccgggc cgacggggcg aatcagatat gggccataat tgagcccaaa gcctcttaaa 60  
 gggccggacc tgatctgggc cgtaatttgg ccagaacat ggtaggcttt taacgggtgg 120  
 atctcatatg ggccactatt aggcccgag catggcaggc cattaatgga ccggatcaaa 180  
 tatgggtcgg catttgccc aaaacatggt agccagttaa tgggccggat tactagggtc 240

ctcaaaatct tgtgggccta cagctgggcc ggcccattaa tgtcggtgaa atctcgtggg 300  
 cctttagcta ggccggccca ttatgatccg caagaatctt gtgggccttt acctgngccg 360  
 gccattatg gcacacaaaa atcttgtggg cctttacct 399

<210> 4955  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-H7  
 <400> 4955

tcccgggtcg acgggtgatc cgaatgatga ttgtgatatc aagattagga gggatgaatgt 60  
 tagagctaatt cttgatattt gtattagcat gtttgagttt tgcattgtagt ctatgtctagt 120  
 gtgggtgttcg tccgacgaag gcttttagtg agcgcgcca agaggatgaga tgccaggatg 180  
 ccgtgtgagg cggcgagcat ggcgagatgc cgatgggtgct gcgtgagaag cggcaagacg 240  
 tatcagaggc tggagccgtg atggactgca tcaaattggg tcgggtgaac cggccgggtcg 300  
 ttctgtttgt tggactagct gttcatgcgt gagttcgttt agtcctagcc gagagtatcg 360  
 ttgctagtag ttgatgcatt catgtagttg gcctgggtcac aagtgggttac cgagtcgtgt 420  
 gcaacgctgg ag 432

<210> 4956  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-A1  
 <400> 4956

taccggtcca gaattaccgg gtcgacgggc ttgaaaagat gggagcaaag gtcacatgga 60  
 ctgacactag tgtaactgtt actggccac cgcgctagcc atttgggaagg aaacacctaa 120  
 aagctgttga tgtcaacatg aacaaaatgc cagatgtcgc gatgactcta gccgttgttg 180  
 ccctgtttgc cgatgggtcca accgctatca gagatgttgc ctctggaga gtgaaggaaa 240  
 ctgaaagaat ggtcgcgatc cggaccgagc tgacgaagct gggagcaacg gtggaggaag 300  
 gcccgacta ctgcatcatc acgccgccg agaagctgaa catcacggcg atcgacacct 360

acgatgacca ccggatggcg atggccttct ccctggcggc ctgtgctgag gtgccagttc 420  
 acatcagga ccctggatgc aaccgaaag aaccttccc 459

<210> 4957  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-A10  
 <400> 4957

attcccgggt cgacgggtgg gctcatgttg gcaaccaatg gatgtatctt ttttattcgt 60  
 cttgcaaaac tatgtgagac tattttactt ttattoggct tgtaaaacta tgttattttt 120  
 atttggttga aactatgcta tttatttggt tgtggactat atgtttgctt gtgaaataat 180  
 gcaaaatttg tgtatgaagt agtgcaaaat ttgtgctatt tgttgaaaaa gggcggtcag 240  
 ccgaccatgc cggcatatat gggtcggcgc gttgggcaca ctgccgacc aaatctcaaa 300  
 tgggacggac gccgagcggg tgaccacca aacggataaa aaacggacaa aaacaccgtc 360  
 cgtttggtcg gcgcgttga gtaactagtt caacttctcc gaag 404

<210> 4958  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-006-Q1-E1-A12  
 <400> 4958

attcccgggt cgacgggacc atggaatttt aattccaaaa aattaaaaaa tgatcagaaa 60  
 aacatgaaac cttgcttgat gtaatgtcat gccaccaaga tgatgtggta aacaattggc 120  
 atgtttgacg aaagtttga cacacacccc tcacaaaccg gagcaactca ctagaaggct 180  
 cgtggttccg aaagggaaca atgcatgttt gatgacgaac aggagatagg ttcctcttac 240  
 ggccttcaaa atttattcta ctctaacgtt cactattaca actgtactgt gaaaatttgg 300  
 aaaattctaa gggtcatttg accttttaaa gacatttaag tgattttcaa gccatttaat 360  
 gaccacaatt canatttgaa ctacatctac atgcaacgcc taaacataac ggtttgaaaa 420  
 atcatattt 429



<210> 4959  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-A2  
  
 <400> 4959

```

gggtcgacgg gagctagcag gaatgcatag cttgttagca cggaacacaa atccatcatt   60
aacgacaaac ttgttccagg ttcttccttc tttacaattc tacaatacat ctttaaaatc  120
agcatcatgc acatattgat ctttgatggt ctccaaacca aatattttga agtcaagttg  180
tgaaagcata gtatagcgac gagacaatgc atcagcaata acattttctt tacccttctt  240
gtgtttaatg acataaggga aagtttcaat gaattcaacc catttagcat gtctacgatt  300
cagtttagct tgacttttaa tatgtttcaa agattcatga tcagaatgta taacaaattc  360
tttgggccat aaataatggt gccatgtttc taaagtccga acaagagcat aaagttcttt  420
atcaaaagta gaataa                                                    436
  
```

<210> 4960  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-006-Q1-E1-A6  
  
 <400> 4960

```

gacggggaat catagtcttg cacataccaa agtgattggt ttttgacaaa aaacaatatg   60
cgctaataaa ataatcttag atggatatca cctgatttgt tcggatgacc gatgatccat  120
tcaacgcaac agaaaacagc tcaggtagac cggcaaccca aaatagcccg gcggcttatac  180
atagcagtgg cggtcaatg cggccccggt gaattaatac agcagagggg ctcaatgttg  240
cgcatttttt aacttcgtcc gtttttttta aatctccaga cacgtatttt tgcaccatag  300
tttcgtgtag ctttctgatg tccatcttga gccggacaga taaatagtag taacaaagta  360
ttgccagtaa tggcagcgca cactgacgga gctgactgct gacgcgaccg cagtccagag  420
tggncaacgt tt                                                        432
  
```

<210> 4961  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-A8  
  
 <400> 4961

gacgggcata ttccaaattg gctacaccta atgatgtggc cgttgaaaga tgaattacat 60  
 atgccacgca cgtcattttg cgtggttctg tatttttagc tgtgggcgtt gctaaacatt 120  
 caccatcatg ttggtgccat ctactgtaag ctgtattggc agctcggata ttctaagggt 180  
 gcctgaattt atgttttagta tgacaacaaa caatttccag tatgcatgcc taccatata 240  
 atgttaatgg gctgtggggc gattaccggt aacatgcttg gtcttgtgcg acctgagaat 300  
 ccctgcctca cacactogac gaatttagcc catgcatctg gtatctagat acaattactc 360  
 ctacaaatat tgtttctata gttgtgatct aaatgct 397

<210> 4962  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-B10  
  
 <400> 4962

attcccgggt cgacgggagt tcacaagatt cctattgagt tttgtgttgt gaagttttca 60  
 agttttggat gaattctttt gatggattat ggaacaaaga gtggcaagag cctaagcttg 120  
 gggatgccca tggcaccccc aagataatcc aaggacacca aaaagtcaaa gcttggggaa 180  
 gccccggaag gcatcccctc tttcgtctac ttccatcggg aatttacttg gagttgtatt 240  
 tttattcact acatgtcatg tgttttgctt ggagcgtctt gtattattcg cgtctttgct 300  
 tgttcgtttt ccacaatcat ccttgctgta cacacctttt tagagagcca tacatgattt 360  
 ggaatttgct agaatactct atgtgcttca cttatatctt ttgagcttga tagttttgct 420

<210> 4963  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B11

<400> 4963

attccccgggt cgacggggcg acggaggcga tggactgccg gccgttcggc ggcggcgaga 60  
gcaagctcaa ggcgaggcg acgacggaca acaaggggtg gtacaagatc gagatcgatc 120  
aggaccacca ggacgagatc tgcgaggtgg tgctgaccaa gagccccgac gcgtcgtgcg 180  
ccgagatcga ggagttccgc gaccgcgcgc gcgtcccgt caccagcaac aacggcatga 240  
agcagcaggg caccgccttc gccaacccca tcgccttctt cccaaggag ccgcgcaagg 300  
agtgcggcgg catcctccag gtttacgacc tcaaggacgc acccgagaac ccatgaaccc 360  
ccatcccatc catatagtct cgctcagttg cttcccatca tca 403

<210> 4964

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B12

<400> 4964

attccccgggt cgacctccgc ggacaagggt cagcgcgatga tggcagagat cgacaccgac 60  
ggtgacggcc tcacgactt cagcgagttc atctccttct gcaacgcca cccggggctc 120  
atgaaggacg tcgccaagggt cttctgaatc agttcatttc acctcagccg tccgttccag 180  
gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc 240  
ccgatccagc ctcagcttca cctgaggccg gccctaaatt tgtttgatca attcttttgc 300  
tactagtagt aactagtgat gatcactggt gcacatttta tttatttatt ttatatatca 360  
tcacaagttt cctgtgattc ttttctttct atacctttt gt 402

<210> 4965

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-C3

<400> 4965

gggtcgaggg gtacatgcac agtaaactgt ttactgacc tgaatttggt ttttttgccg 60

agagttgctc agttgtccaa atgatttgaa aattagagcg gacctcatgc atcaaattgt 120  
ctgccattgg aaaaatttgt aactttttga atgtttctag tatttgtttt gatttgtttt 180  
ttatttaaca cgggtgcaga tgagctcggg ctcacaaaag catttctcaa agtctgggtc 240  
ctaaatctgg gcagtgttg cgttattgcc gctctaggac ttgcttccc tatctctgtc 300  
ttcctttcgt ttcgtttct tcaaagtcag agaaagagac tgggtaaaca aacaaaaaat 360  
tttgcgcttt tgactggaat tgtgataggc acgtttcaac aagcaggga taaacaaaac 420  
gaa 423

<210> 4966  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-006-Q1-E1-C5  
<400> 4966

attccccggc cgacctctc aaccagaaca acaccttcaa gcccttcgcc gaatacaagt 60  
cggactacgt gtaccagccc ttccccaagc ccgtgtggga gcagatcttc ggctgggtca 120  
cgaagcccgg tggggggatg atgatcatgg acccatacgg cgccaccatc agcgccaccc 180  
ccgaagcggc gacgccgttc cctcaccgcc agggcggttct cttcaacatc cagtacgtca 240  
actactggtt cgccgaggca gccgccgccg cgccgctgca gtggagcaag gacatgtaca 300  
atttcatgga gccgtacgtg agcaagaacc ccaggcaggc gtacgccaac tacanggaca 360  
ttgacctcgg caagaacgac gtggtgaacg acatctcaac ctat 404

<210> 4967  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-C7  
<400> 4967

attccccggg cgacgggctc gtgtacattt ttcacagaag gggtcgagta gcaaattgtc 60  
atatatatac cgtgggattg ggaatcgaaa atgttcgtac gctgtcgggc gctcatcttc 120  
ttcttctctg gttctgctgg ttcccttgac ttgtaagaag gtaaacataa ttttaattaat 180

ttggaatttt taaccgaaa ttggataacg gttcaaggct tggaatgtat aaggaaggta 240  
 ccttaattga ccaacaaagt gtgttttgaa cgtctctctc gcttacaaaa aaaaaaaaaa 300  
 aaaagaaaaa aaaagagaaa aaaaaaaaaa agaaaaaaaa tataaaagaa aaaaacacca 360  
 aaagaaaaaa atttaaccac ggtaaaaaaa aactcgtttt aagaaaaaaa aaaggggggc 420  
 cccaaaaagt tttaaatttt tt 442

<210> 4968  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-C8

<400> 4968  
 aattcgcggg tcgacggggc gaaggaagaa gacggcagaa gaggtggaag aagcccttct 60  
 agccatccat gttgcatcaa atggctcaca tgagtggatt gacccaaatt gtccttttag 120  
 attgcaggat acacgtggca ttcaaggtct cgaaggtaga ttccgcgtcc gcacccgggt 180  
 tgcgggctcg acgcgcgcgc aaccggcttc cgccgcgaca gccaccatgc gcgccttctc 240  
 tgcgcgggca gagacgacaa tgacacgcta gttcctcctt gccggcgtgc tggagcacgc 300  
 gtcctcctc ctcttcgtac gctgcgtgca tagacacgac tcaaccagct gtcgcgtgc 360  
 ttggcagcgc ggccgcatcg tgagcaggga ctgtagacga cgtgag 406

<210> 4969  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-C9

<400> 4969  
 aattcccggg tcgacggggg aaggggaagt gctctgtact ccgcatgctt ctataggatt 60  
 ttgggcgtgg cgaatctgtg tcgtggcaat tgcattcatc gtttgaattt ttgcaggctc 120  
 taagtttgtg tccctgagcg gctagcgttc cttggcctct caaactgagg ttgcgaaacc 180  
 tttttcttga gtcaatttat atactgtata agaaagggtg acaagtcagg catctaatat 240  
 tgtttcgtcg ccgacgtgaa ctgctagtga attgcatttt tcaagctcct gtgattcggg 300

agcattttcta ttagttacat ctgcaaagcc aagcaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
 aaaaaaaaaa aaaaaaaaaa aaagaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 420  
 gcggggcgcc 429

<210> 4970  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-D10  
 <400> 4970

gtacaggtcc agaattcccc ggtcgacggg ggatgaggag taaaaagaat cctactctcc 60  
 gacatatata atcctaagac tcaaaatagt tttcttctag actcaacaat ggccaacaat 120  
 caaggggggct cctaaggctg gtcgaggctc tgataccaaa ttttcacgcc caagatgtga 180  
 ccctatccta aaggaactcg aagggtccac caaggataga agcgcatctt gaagacgctt 240  
 ttgcaagatg gatatcatta catcaacact acataataga tggggataca taaaaaggc 300  
 atacaatgcc acatgaatac aacatcacia tacataagag caacatccga ctatggatga 360  
 aacacaaaca gaaactcaaa tgacatccac cctgctagcc caggctgccg acctggaacc 420  
 tatcccctga ttaaagaag 439

<210> 4971  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-D11  
 <400> 4971

attcccgggt cgacggggtg aagaaggaga acgacaacat gcagatcgag ctcaggcata 60  
 tgaaaggcga ggatgtgaac tccctgcagc ccaaggaact gatcgccatt gaggaagctc 120  
 tcacgaacgg ccagaccaac ctcagggaca agatgatgga cactggaag atgcacagga 180  
 ggaatgagaa gatgctggag gaggagcaca agctgctggc tctgaggatg caccagcagg 240  
 acgacctgag cagcggcatg agggagatgg agctcgggta ccatcagggt agggatttca 300  
 cttcccagat gccgttcacc ttccggtgc agcccagcca cccaacttg caggaagaca 360

agtaggccac cgaatcctgc cacggcctgt gtcaactgaa gtcctcttac ctgc 414

<210> 4972  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-D3  
 <400> 4972

gggccagaat atccgggtcg acggggcagt tgtgagtgtg aggctgatcg gcaagttgga 60  
 cgacggcact gtgttcacga agaaaggaca tgaaggcgac gaaccattcg agttcaggac 120  
 ggatgaggag cagggtcatcg aagggtctgga cagcagcgtg ctcaccatga agaaaggaga 180  
 ggctcgcgtca gctagaatac cacctgaaca tgcgttcgga tccaccgaga cgaagcttga 240  
 tcttgctgtg gtctctccca actccaccgt cttctatgaa gtggagattg tttccttcga 300  
 caaggagaaa gaatcttggg acttgaagag taatgctgag aagatcgaag cagctgctaa 360  
 aaagaaagat gaaggaaatg cgtggtttta gatgggcaag tacgccaagg cttccaagag 420  
 atatga 426

<210> 4973  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-D4  
 <400> 4973

cgggtcgacc ggcacccct ctttcgtctt cgttcattgg taactttact tggagctata 60  
 tttttattcg ccacatgtta tgtgttttgc ttggagcatc gtgtattata ttagtctttg 120  
 ctttttagtt taccacaatc atccttggtg tacacacctt ttgggagaag actacttgat 180  
 tataatttgc tagaatactc tatgtgcttc actcatatct tttgagcgtg atagtttttg 240  
 ttctagtgtc tcaattatat ctttttagagc acggcgggtg cttaattttg aagaaattgc 300  
 tagtctctca tgcttcactt atatcttttt gagagtcttt tagaacagca tggatatttc 360  
 tatgggtaca aatttgggtcc tagaatgatg agcatccaag ttgggtataa taaaaactat 420  
 cat 423

<210> 4974  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-D5  
  
 <400> 4974

gtaccagtca acaattcccg ggtcgacggg aacgagaagt gatggagcgc taaaccttga 60  
 caaatctcgg ggaaaatgga gctcgaaagt cgagtttcga gaggagaaag attaactagt 120  
 gtggctcgga catttcatcg aacacctcat gtgcatagga ggtgagatag agcacccaaa 180  
 tgcctctcc tcgccggcca aaaaaaacag agcactgtgg agtgctctgc cgcggtgatg 240  
 ggtatatata ggcaatttat ttgtcccggg tcatgccacg aaccgggact aaagctcccc 300  
 cttctacacc ggttcaaggc atgaaccggg accaatggct gtgggccagg agcgaggacc 360  
 attggccccg gttcgtgcct agaaccggga caaatgggtc cagacaaaacc gggaccaatg 420  
 ctcacgaggc cccggccggg cccctgggct cat 453

<210> 4975  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-D8  
  
 <400> 4975

gggtcgacgg gagcctctac ggtaccgtgc attgcccttt ctcaccttga gagttgggtgc 60  
 aaacttcgcc ggtgcatcca aaccccatga tatgatacgc tctatcacac ataaacctcc 120  
 ttatatcttc cttaaaacag ccaccatacc taccaattat ggcatattcca tagccattcc 180  
 gagatatatt gccatggaac tttccaccgt tccgttcacg atgacatgtt tcatcattgt 240  
 catattgggt ttgcatgacg atgtagtga catcgatatt gtggcaaagc caccttcata 300  
 atttttcata catgtcgctc ttgattcatt gcatactcgc gtacaccgcc ataggcattc 360  
 atatagagtc atattttgtt ctagtatcga gttgtaattc atgaattgta aataaaaataa 420  
 agtgtgatga aca 433



<210> 4976  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-E10

<400> 4976

tacaggtcta gaattcccgg gtcgacgggt atcataaata acaataggaa aacatgatgc 60  
 aaaatgaacg tatcaactcc cccaagctta gacctcgctt gtccgcaaac aaaaaccgaa 120  
 atcgaaaaac atgtccacat gcttagagag agagaggtgt cgataaaaaac aaaatacggg 180  
 catagaagca tgatgtttat tattatagca gcaacaaact taaacaaaat acatatcttt 240  
 gtcataaata acagtaagtg attacatacg gagcaaaata agtgaatcta cactctaaaa 300  
 tgtctaaaaa caagtgagtc tacatatatc cgtatgttac agttcatttg aaatgtctaa 360  
 aatgacttat atttaaaaac gaaggaggta gatgggttgg ctatgacaat actaatgtga 420  
 ccggaagtcc tgag 434

<210> 4977  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-006-Q1-E1-E12

<400> 4977

ttcccggttc gacgggagtg tgaattttct atcataactt ttggatttag ggaagtatga 60  
 tgaatcttac attctttaca gactatactg ttttggcaga ttgctgttat gtttgcattg 120  
 tttgcatatg tttgcttggt taatgattct atttgaggat angagtgtta aatatgcaga 180  
 tacatttagt attcaatggt gaacaataat ttatgtgatt ttttacaata taaaatgata 240  
 agtttttgca ttggtttata ctaacctatc tcacgagttt ttgttgagtt tgggtgtggat 300  
 gaagcttttg ataaaaagag aaaccatgat atgagaggaa ttaatgagac acaaaagtgc 360  
 aagcttgggg atgccaagg cacccaaaga 390

<210> 4978  
 <211> 212  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-006-Q1-E1-E6

<400>       4978

taccagtcca gaattcccgg gtcgacgggg taaggaattg taaatatcca ttgttgtagc   60  
gcgacctgaa taaaataaac gatctaagtc tctagtccaa aaaaagtcaa aagcatgtaa   120  
aaaaaaaaatc ggccgctcga taggatctac gcttacatag tcgtgcatgc gacatcatac   180  
ctcttctgta atgtcagcta aattcaattc ag                                       212

<210>       4979

<211>       404

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-006-Q1-E1-F10

<400>       4979

aattcccggg tcgacggggc attgcatgcg tatggttgct tctttaatga ttctttttga   60  
ggataggact attaaatatg cagaggcatt tagtatgaaa tgttgaataa taatttttagt   120  
gattttctac agtagagtat gataaggttt ttgcaatggt ttatactaac tcatctcacg   180  
agtccttggt gagttttgtg tggatgaagc ttttgagatt tagggagacc gtgatatgag   240  
aggaattaag gagacacaaa atctcaatct tggggatgcc caaggcatcc caagataata   300  
tttcaagaag tctctagctt ctaagcttgg ggatgccccg gctggcatcc cacctttctt   360  
cttcaataaa ctatcggtta atattggttg atcctaagtt tttg                       404

<210>       4980

<211>       399

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-006-Q1-E1-F11

<400>       4980

aattcccggg tcgacgggac gctggactgc gacgagttcg tgacggtgac gctgcacctc   60  
aagaagatga ccaacgagaa gtacctggcg gggcggttcc gctacttcga caaggacggc   120  
agcggcttca tcgagatcga cgagctccgg caggagctgg ggccaacga gcaggccatc   180

ctcgagatca tccgcgacgt cgacaccgac cgggacggac gcatcagcta ccaggagttc 240  
gagctgatga tgaagtccgg ggcggactgg aggacccgcc agttctcgcg ggccaacttc 300  
agcacctca gccggaaact atgcaaagaa gaaacttcct cctcgtgaat tcaatttggt 360  
ctactgctag atgtgattct ttttgtgcat gtaagctgc 399

<210> 4981  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-F12  
<400> 4981

ttcccgggtc gacgaggacg acgacgtgga tgtggacgag tcggatagaa agctcttaga 60  
tgatgaaaag aaacccgata tcacgaaacg accacacact cctattggag atgatgtgga 120  
atgcaagaag ccaaagatag cagaaggctc aagggtgcaa ggagaagaac ctgaggctgg 180  
agggataaag aattcctcct gggctctgatg acaggggaat gcagtaaaca ccagaagcat 240  
caaaactatg atctggtaca gtatcctgaa tacactatct tctggattat gaatgaattc 300  
tgaagcatgg ggctataagt gaattatgta acatggattt gtaactatgg tggatgtaa 360  
gttaatgttc tatcacgtac atgccgccgc agcactacta cgttccgaac 410

<210> 4982  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-F4  
<400> 4982

gggtcgaccg ggagcgcaag atcgggggtgg ccatggacta ctcggcgagc agcaagcgag 60  
cgctggagtg ggccgtccgg aacctgctcc gccggggcga caccgtcgtc gtcctccacg 120  
tccagcgcca cggcggggag gaggccaagc acgccgtttg ggccaagtcc ggatccccac 180  
tcatccctct gtccgagtac cgggagccgg aggtgatgaa gaactacggc gtgacctgcg 240  
acgccgaggt gctcgacatg ctcgacaccg ccgcgcgccca gctcgagctg aagggtggtg 300  
cgaaggtgta ctggggcgac gccagggaga agctctgcga cgcggtggag gagcagaaga 360

tcgacacccat cgtcatgggc agccgcggcc tcggtacccat ccagaggatt cttctgggaa 420  
gtgtgaccaa ctacg 435

<210> 4983  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-006-Q1-E1-F6  
  
<400> 4983

aattccccggg tcgacgggca atggaagatg taggtgtgat atgtcaagta gtggacagat 60  
aagccaacca ctggatgtgg ttttcaggga tttttgcagt gggatttgta ggggtactatg 120  
ctgcgctgtg tttgggattt gaaataaaac gatgggagat gtgccacgct cttaaagtcc 180  
agtcttctgc tctaattctg ctaaattact tgttgcattt tgcagcttgt ctacctttac 240  
agtgactacc ttcttttggc tgtgctcatt tggcaaaaca gtttgtctaa ttcacatcta 300  
cttcgtgtct ttttagacat ttcaaataga caacaacata cggatgtatg tagacatatt 360  
ttatagtgtg gatccattca ttttgcctcg tatgttgtca cttgttggaa tctctagaaa 420  
gac 423

<210> 4984  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-006-Q1-E1-F7  
  
<400> 4984

aattccccggg tcgacggggg cggtagggcg aacggcgggg atgacctaca tcggctactc 60  
caggctctgc gcgtccattg tgcggagctg cctcaaggag ccctacaagt ccgaggccgc 120  
cgaagtcgag aaggctccact actcccgctc caagtggacc gacggaaagc agcccaagcc 180  
caccatctgc gaagatgata aatgaaagat ccggtgccat ggtgacagag tccttctctac 240  
ggacgttttc aaaagctact gtgtttcgtg ctggccattc tacctaaaac tcgttatctg 300  
ttagatttat gtttcacgct caagaataaa ttattttacgt gacattggat ctgttccgac 360  
accattttat ttttaactttt aatcgctac 389

<210> 4985  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-F8  
  
 <400> 4985

aattcccgagg tcgacgggag agaggaggag cttggagggtg gttcatagca cgggtgctccc 60  
 ctcccttgct ctgcgttttc gttgtggtga agatggcgat atcgatggag cgcaggaaga 120  
 tgaagcccggt ccttgctctc gtgctgctgc tgtcgtgcca tcttcttctt ccgctggctc 180  
 cctccgtgcc tgtgtcgagt aagtgtttga cctccaaccc catgcacgca tgcattggacc 240  
 ttacttaata tcagttcatc ttctttcttg gcatgtgtat gtgcatgcat gcatcttaat 300  
 tttgagcctt gctctcgat gtaggaagcg tggccttggg aaatcatcta gcctcagctt 360  
 ctagtctaac tctggaggcg gcgcctgttc aggtcaatct ctactctac ctgatgcc 418

<210> 4986  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-F9  
  
 <400> 4986

attcccgaggc cgacgggggc atggacattg gcatgggtgt tgtggccgtg agcgggtgatg 60  
 gtaaagggga tcaggggggc gaggctggcc aggatgagca ggtgaagaaa aagcgcggga 120  
 ggccaaggaa gtataagcct gatgggtcag tgacgttggg gctctcgcca tctccatcca 180  
 cgcctcattc gtcgagccca ggaatgggag cgatgggtac cacacctggc tcaggatttg 240  
 ggccggggac agggtcaggg ggttctggtt caggcgact gacggagaaa cgtggcagag 300  
 ggcgccacc tgggtccggg aagatgcagc agctggcttc gcttgaaaaa tggtttcttg 360  
 gctctgttg aacagggttt actcctcacg tgatta 396

<210> 4987  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-G11

<400> 4987

tcccgggtcg acgggatgtc aaaatgggaa tgcaggctgt gccgctgacc tctgccgcac 60  
taactgcgga ggtgaatgca ctaaagcaga gcctcgaacg gtccgagaat gagctcggcc 120  
ttgccaagaa gtagctcgag gataaggaag gtaagtaata cttatgaaa gtagtacctt 180  
atagaaaagg atttggttgc aaaaaatgac aagaataacg tgggtattgc agggggccacg 240  
aatgaggtgg cgaccctgaa ggaggcgggtg tccaaggctg aaagcagtgc ggccttgagg 300  
cgaccgagc gagagaagca agaggcgcgg gtggcggagg tgcggcaaga gctccaggct 360  
ctcgtggaaa aacatgagag tttggagggt gactcgaggg cccgagagtc cg 412

<210> 4988

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-G3

<400> 4988

ggtecagaat atccgggtcg acgggttccc tttgtcatcg gtatgttact tgcccagat 60  
tcgatcatcg gtatctcaat acctagttca atctcattac cggcaagtct ctttactcgt 120  
tccgtaatgc atcatccgc aactaactca ttagtcacat tgcattgcaag gcttatagtg 180  
atgtacatta ccgagagggc ccagagatac ctattcgaca atcggagtga caaatcctaa 240  
tctcgatcta tgccaactca acaaacacca tcggagacac ctgtagagca cctttataat 300  
caccagtta cgttgtgacg tttggtagca cacaagtgt tcctccggtg ttcgggagtt 360  
gcataatctc atagttatag gaacatgtat aagtcatgaa gaaagcaata gcaacatact 420  
aaacgatcaa gtgctaagct aacag 445

<210> 4989

<211> 421

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-006-Q1-E1-G6

<400> 4989

aattgccggg tcgacgggcg acggtgagag gcgcccacat caacctcaag gtcaaggggc 60  
aggatggcaa tgagggttttc ttccgcatca agagatccac acagctgaag aagctgatga 120  
acgcttactg cgaccgtcag tctgtggatc tcaactccat tgctttcctt tttgatggtc 180  
gtaggctccg tggtagagcag acccctgatg agcttgagat ggaggaaggc gacgagatcg 240  
acgccatgct tcaccagacc ggaggggtgct ttcttgcccc ttagaaggag cttgctgcag 300  
cctggctggt ctatgtcgta tgctaccttt agaactagag taaaatgtaa gaagtgaag 360  
aacttgtgag gctatggttc tgtgccatag cctgangggg ggtctggagg tgaaacaaca 420  
t 421

<210> 4990  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-G8  
<400> 4990

gggtcgacgg gctactacta ttgatcattt tgttctgtac atatcaatgc gcattagaat 60  
gtgcagctta caaatgggtga aatggccgga gcgatgatgt ggagatcttt gtaaagaaga 120  
caagacaatg gaatagtaag aaatacaaaa tagggctact ggtgaaatac atgagctgag 180  
aagccgcaaa atagcgcttt gctggttaac cgggttaaaa tatgttccca ttgcctgtgg 240  
gatggggctg aatgcggaga ctggttgtag ttcataggga gtagtgtaag tttcactggt 300  
agcacctagc tagctgagat ttcacaatta ctaatattga tttttgaaca tgttgactgg 360  
attatattga tttcgtatct tgctaagagc ctaagatgct aaggggcaac cttttgatgg 420  
tc 422

<210> 4991  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-G9  
<400> 4991

attcccgggt cgacggggcg ctctgctacg gctgccagtc gtgcaaggcc ggcgtgggtg 60

ccacgctcaa gcgcaactgg aagcgctccg ccatcatcaa catcgtcttc ctcgctttca 120  
tcgtcatcgt ctactccgtc ggctgctgcg ccttcaggaa caaccgccgc gaccaccgca 180  
acggcggcgg gtacaagcag cagggcgcggt acgcttgatc gcgcgcttgg ctcggttatt 240  
tattgcttgg attggatgga tgcgatcgtc tcgtcgtgtc atgcattctc gtcgtcgtgt 300  
ttctcttagg atggcctgat ctagctttgt acaggcgaga tgtgctctga tcacctacta 360  
gttaggtttt actccgtggg catgaggagg gatgtgtata tatatttt 408

<210> 4992  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-H11  
<400> 4992

attcccgggt cgacggggat ccacagaaag aaaaaaagag ttgttttggg gaacatcaaa 60  
gaaaaaactt gctcttcttc cataaaaaat tcttctaaaa atgccgaacc caaccgttgc 120  
ataaaagtgc gtaccgtgct tttatgttta cgagctaaag ttctagcgca tgaaagtcga 180  
agtatatact ttagtcgata caaagtcctg tttttcgaag atccactatg ataataaaaa 240  
agatttctac atatccgacc aaatcgatca agaataatccc aatctgataa atctgtccaa 300  
atgggtttac taataggatg ccccgatcca gtacaaaatt gagcttttga taagtatcct 360  
atgaggagag tagcggggac tatggtatcg aatttttttc attcgagtat ctattagaaa 420  
tg 422

<210> 4993  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-H7  
<400> 4993

gtaccagtct agaattcccg ggtcgacggg gacgatcctg ttgtccttga catgacttct 60  
atgtgcaagg gtatgatata cgtgaacggt gaaggcatgg gtcgctactg gacgtcattc 120  
ataactcctg gcaaagtcgc ttcccaggca gtgtaccata ttccacggcc atttttgaaa 180



tccaagaaca acctattggt tgtatttgag gaggagcttg gcaagccgga aggcatactc 240  
atccagacag tgaggagaga tgacatctgc gtgtttatct cggagcacia ccctgcgcag 300  
ataaagccat gggacgagca tggaggccag atcaagctca tagccgaaga ccacaacact 360  
cggggattct tgaactgccc cccgaagaag accatccagg aggtagtctt tgccagcttc 420  
ggcaaccggt tggggtcatt cgccaacttc ac 452

<210> 4994  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-H8  
<400> 4994

aattcccggg ccgacgggta taacaatcca ccatgaactt ctgcagggat ttcattggcg 60  
accaagcgat tcataatatt cacctggagg acgacagttc tctggcgcca tattaccttc 120  
acgacatatt acatctcaag gggaacaata caaggaggcc acatcagttc atcgagtcta 180  
tcgacgaatg ataaaggata cagtttcaag cgaatatgag ggtgtaacaa actgatgtat 240  
cttgggggca ttctttgcct gagactgttt ctgttgaggc aaagtgtttg taccataatg 300  
atctagatta tctatgtgga cctatatatt attgtcagca caacatggaa tgaatttgaa 360  
tgtcaagtac aaaccacggt attcgggcat gaccgatcta aaaaaaaaaa taa 413

<210> 4995  
<211> 371  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-H9  
<400> 4995

ggtcgacggg ctagtgcaga tcgggcacga gctcctcagg aagaacgtgt cccgggtgga 60  
cctgggagacc ggccgcaacg tggagatgcc tggccagggc accaacgcgg agcagctcgc 120  
caggttcgca aagcagctct ccgacgagcg ccgccgccgc aaaaaggcgc ttcagggttaa 180  
ctagcagctg gccgccggt cgctcgactg tggtgaatct tgctcgtttg gtggatgttt 240  
tccattcagt tctttttctt ggtacagcga tgtacagtaa tattgtacag ttatgtgaga 300

gtattgtgcc acggttgga aatatactaa ggggtgtacct gttttgctgg agcgagtgtt 360  
gatcaagatc g 371

<210> 4996  
<211> 405  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-007-Q1-E1-A1  
  
<400> 4996

cgggtccagaa ctcgcgggtc gacgggcccc gctacggccg caagaagaat gatgacgacg 60  
atgacgagga taggcagcgg cgatacaaga agcgcgacga cgacgacgat gatgagagga 120  
agccacggca caagaagcac gacgatgatg acgacgacga tggcgagagg aagccgcgggt 180  
acaagaaacg tgacgacgac gatgatgatg aggatgacag gaagccgcgt tacaagaagc 240  
gtgacgacga cgacgacgat gatagaaagc cacgttataa gaagcacgac gacgatgacg 300  
acgacgacga tgagaggaag cagcgtcgcg ggaacaaccg ccgccgccat gattacgatg 360  
actgatcaag gcatcctgac atgagtttag ctgacgctaa ataag 405

<210> 4997  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-007-Q1-E1-A7  
  
<400> 4997

tcccgggtcg acgggggtatg acagataata tcgatatagg ttattctaca agattactct 60  
atagatccat cagctctaag taaactgcgt ataatcatg tatgtataag gtatgtgtta 120  
ctgatgttag aagttgattc cttgtgtgag ggtgcggatg taacacaaca tgtaattctt 180  
aatatccaca tgcctcacca aaacaatgta cggctaaccg acaattatga cgttatcaag 240  
ctcattataa atatgcatgt aataaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aattaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagcggcc 360  
gccccaaaagg ttcaaaccctt acttaccctt gaatgcaact tcaaaccctt tcaaagtgt 420  
caccaaaatt caattcaagg gccg 444

<210> 4998  
 <211> 233  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-B6

<400> 4998

gtaccgatcc agaattcgcg ggtcgacggg cgggatcatg atcatgagga atatatagga 60  
 taataagggtg gtgtattacc accatgcccg ttgagctgat gtttgtttca gctagagaaa 120  
 tcgttacgcc cgctcataat tcctttttcg acgctctgga gaataataac tactggtata 180  
 tcattctata tcaaagccgg cttgtgaaat aaatgatccg ccgtcttgcc ttc 233

<210> 4999  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-B8

<400> 4999

taccgatcca gaattcgcg gtcgacgggc agactgttct gtttttgaca gattctgttt 60  
 ttcgtgtgtt gtttgcttat ttcgatgcat ctatggctag taaattagtt tataaaccat 120  
 agagaacttg gattacagta ggtttaaaac caaaataaat aaataatgag ttcattgcag 180  
 taccttatgt ggtgggttttg ttttctttca ctaacggagc ttataagatt tcctgttgag 240  
 ttttgtgttg tgaagttttc aagttttggg taaagctttt atggactatg gaataaaggg 300  
 tggcaagagc ctaagcttgg ggatgcccaa ggtaccccaa gatattcaag aatagccaaa 360  
 atcctaagct tgggggatgc cccgggaagg catccctctt ttcgctctcg ttcattggta 420  
 actttatttg gagctatatt tttattcgcc acatgatatg tggt 464

<210> 5000  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-007-Q1-E1-C2

<400> 5000

cggtccagaa atcncgggtc gacggggctg acgcgtggat gcctattggt cccggttgat 60  
gccaccaacc gggaccaaag ggtctcctga ctgggctctg cacactgccc acgtggatgg 120  
gctttagtcc cggttctgga ttgaaccggg actaaagggt ggaggtatta gtaccgacac 180  
tttagtcccg gttcaggaac cgggactaaa ggcccttacg aatcgggact ataggccctt 240  
tttctaccag tgcagccaca catgacggcc accgtcgaga gataaagcat gatttgctaa 300  
gttgtgagct tcaaaattca agctcctaaa ttcattggcta gatttacaga aatcaaaagt 360  
ggcatattat ttcattgatg gtagctccat aaacagatga gttttccttc ttcaagtcta 420  
ccancaccac tttgcaatcc gaaggcaact tggaaatcac acacataaa 469

<210> 5001

<211> 416

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-007-Q1-E1-C5

<400> 5001

taccagtcca gaattcncgg gtcgacgggg accacaagga gaagaaggac aagaagaaga 60  
aggacaagaa gcacggcgag ggccacaagg acgacgacgg ccacggcagc agcagcagcg 120  
acagcgacag cgactgagcc agctccggcc gcgctccggc agcagcgtgc agtgtaggag 180  
agatcgatga acgcttgagg gaagtgtggc atacatatat gttgcagggt ttggagcgtg 240  
tggtagcata tgtatgtaat gcgtgacatg tctcatggat cttgtgatgt ataataatta 300  
gccggctgca ctgactgca cggtgcttgt aataataacg ttaatgaatc atgttggtat 360  
tgatgcaaaa naaaaaaaaa aaatcaaaaa atagcaacat taaaaaaaaatg ttaacg 416

<210> 5002

<211> 346

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-C6

<400> 5002

taccgatcca gaattcgcgg gtcgacggga gcatccccgg gatggagcct gtcaagggtg 60

acgcggcgcg gcccatcgcc gtggcgcccc ggtccatcgt gttcgtccac atg'ccggatt 120  
 accatgcccc tgcgtgtgct tagttagggc tttttgggtg tcttgttggt ataggtagtg 180  
 gtgataaaag ggtggccttgc taagcatgtc catcctagct agggtagtta taagatggct 240  
 gaagagagtg tgtggcctttg tgtgattaga tgtaataagt ttggagggaa aattgaatta 300  
 gtgaaacaag aggcaatggg aataaactct ttccctggttt cttctg 346

<210> 5003  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-007-Q1-E1-C7

<400> 5003

gtaccgatct agaattcccg ggtcgacggg atctcggaat ggctatggaa ataccataat 60  
 aggtaggtat ggtggatttt ttgaggaagg tatatgggtg gtgtagtgca ccggcgaaag 120  
 ttgtgtggta ctagagaggc tagtagttgt ggaaggggtga gagtgcgat aatccgtgga 180  
 ctcaacatta gtcataaaga actcacatac ttgttgcaaa aaattattag ctatcgaaac 240  
 aaagtactac acgcatgctc ctaggggggt agattggtag gaaaagacca tcgctcgtec 300  
 ccgaccgcca ttcataagga agacaatcaa agaataaatc atgctccgaa tcattgggac 360  
 accttctaga taaagttgac tcatctccag tcncatcttt atcaagattt atattagaaa 420  
 caaagattca ataggagtca caccaatcac ttttaag 456

<210> 5004  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-D1

<400> 5004

ggtccagaat atccgggtcg acgccaagaa aggcttctgt caaatatatc atcagtatca 60  
 atcactatat gacaccacac aacagatatg ctgctgtcag cagtgtcttc taaatagaca 120  
 ctgcaattat cttatacatc attactgttg tcagcaatgc tctctaaata gacactgcaa 180

ttatcatgta catcattgct gctgcaataa accactaaga attattcaat atctagccta 240  
 ggccttcgt tatcatcaac cgagggttga ggcggagtta caaaatctga atgagaaacc 300  
 aagggtattgt ccaagtcagc gacatctttg ttatcttcag agctgttaga agcagctgag 360  
 atggcgtcac ccgattctga atgtgttctg tccacatatg cttcgggttaa ggagctctc 419

<210> 5005  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-007-Q1-E1-D5  
 <400> 5005

gtaccgatca agaattcccg ggtcgacggg gaaaacggcc agcccatgga tgaggagtat 60  
 gaggagcagg ttccagatta ctcgagagcc tattctgggtg ggttgagacc ccatgcccat 120  
 gtcatgttgg atgatgagac cgaggatgat gatgaagacg ctgaagggga cggagagggc 180  
 gacgaggaag aatacgacgt gaaccatgct tcggctgatg ttgatgatga gatggacgag 240  
 gatgatgatg atataggtaa tgatggggat gatgggtgggtg atggagttga ggtgaatgca 300  
 gatgaagatg aaggcgcgac ctcatctcgc tcagagtaca gtgaataaga gcttgtctca 360  
 tgtgaccatt tacgcacgta gtgatactgg tggacaataa taagcctttt ggcctttttt 420  
 tgggggcaaa gtgggctaga cgtggaacgg gga 453

<210> 5006  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-007-Q1-E1-D8  
 <400> 5006

aattcgcggg tcgacgggca cgatcacgga ttcgctcggc agatcagcgc gcaccagccc 60  
 ccaagcctcc ggatcctcct tcgtcgtcct cccaccgca agcttcagcc atggcaggaa 120  
 tggcaccaga gggttcccag tttgatgcta agcagtatga cagcaagatg accgagttac 180  
 tgaaccaagg tgacaccggg gagtttttca cctcgtatga tgagggtgcac gaaagttttg 240  
 atgacatggg cctccaatag aaccttctta gaggcaccta cgcttatggg tttgagaagc 300

catcagccat tcagcaaaga ggaattgttc cttctgcaa gggctctgat gtgattcagc 360  
aagctcagtc tggaacagga aaaactgcc a cttctgttc tg 402

<210> 5007  
<211> 102  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-E12  
<400> 5007

agtcgtatta gtcctaaaaa aggggcggcc ctaaaggatc aagccttact tacccttgca 60  
ggcaagttca taccctcct aaattgtcac caaaattcaa tt 102

<210> 5008  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-E5  
<400> 5008

gtaccgatca aaaattcccg ggtcgacggg cggcgacagt gccggccacg gtggcgagct 60  
gggcgctctg aagcggtcgt cgtcgtacaa tgccgacagg ggcagagaat ccacgatgaa 120  
cgctgctagc accacgggtg gtggttgcaa gctggagctt gcggcggagg aggtggacgg 180  
cgtcgcgcc cgctgcatcc cggccgggag gaaaccacg gccagcagca gcaagaagtc 240  
tccgaccacc cagtcacag ttagcagccg gcgcggcgac caaccgaaa ctaccgacga 300  
cggacggact gactgatttc acccaagaaa actcatgaaa acatactagt actagcatca 360  
aaatgttgat cgacgtgctt ccgctgcaga ctgaacgaat gtcttgctac ggcacgcgct 420  
cttgcatcga ctaactttcc tttttaaaat ttcc 454

<210> 5009  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-E7  
<400> 5009

gacgggttga tcaaaaaggc tgcaagaag ggtcagatgc cctcgagat cggcgttctc 60  
ctccgtgacc agcacggtat cccctcgtg aagagcggtta cgggaagcaa gatcctccgc 120  
atcctcaagg ctcatggcct ggctccgga atcccagagg atctgtactt tttgattaag 180  
aaggctgtcg ccattaggaa gcatcttgag aggaacagga aggacaaaga ctccaaattc 240  
aggctcattc ttgttgagag caggatccag cgtcttgccc gttactacaa gcgcaccaag 300  
aagctcccg ccacctggaa gtacgagtct accactgcca gcactctggt ggcttatgat 360  
ggctcttcat ctggtgtgct cttaccggct tcatgatggt cttggt 406

<210> 5010  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-007-Q1-E1-E8  
<400> 5010

aattcgcggg tcgacgggga gaaacatcat gagatccaac tataatagca aagctcggga 60  
tacatcaaga tcgtgccata gaggggaacac gagagagaa acgagagaga gagagagaga 120  
gatcaaacac atagetactg gtacataccc tcagcctcga ggggtgaacta ctccctcctc 180  
gtcatggaga gcgcgggat gatgaagatg gccaccggtg atgggtcccc cctccggcag 240  
gggtgcggga agggctcccg agagggtttt ggtggctaca gaggcttgcg gcggcggaac 300  
ttccgatcta ggtaattcc cgaaagtctc agtatttata ggaattattg gcgttggttt 360  
cacgtcaggg ggggtctcccg gccgtccacg agatangggg gcgcgccctt ctaactcgtg 420  
ggcatcccg acctcttctg gcccaactcc gatgct 456

<210> 5011  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-007-Q1-E1-F7  
<400> 5011

attcgcggg tcgacggggtg ggccattgg cttgtacga cctagattta gttttaggct 60



gccttggggac atcctccac ctccttggcc gccaccctt gtcctatat aagtagatcc 120  
atctagtagc ttttctggg gatttgttta gttaaaagtt agccaacgca acttcgtgta 180  
cttcgtttgt gtccaacgac cagaccaaga ccgctttcgg atccccacct ttatcaatac 240  
ttcatacata ttgcaatat tcagattgct tttatcatat tcttgctcgt tcttcgattg 300  
cttgcaggaa tagaccttcg tggtcagggt gatcgtgcna cggcgtggtc aataacctct 360  
ggagattggt ttagcgattg ctaaggcgca acgtcgtgca cgtttgt 407

<210> 5012  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-G5  
<400> 5012

gtaccgatca agaattcgcg ggtcgacggg ggaaaatata ttctgcatct cccattgccc 60  
atggttagcag acgctcatgg aggagtgcgc aaaagactgc ggatcagaaa ccctcagagc 120  
cagtcaatac tcggcctcgc cgtactccga gcagaagtca ttatcacgca gcatcccggc 180  
ggactatacg gctgagctgt ctgatgccat caagctgcac atcggggttgt aatcacagat 240  
agcatatgca tctatatgat gctataagca attgacgata tagagtaa at agtatatgca 300  
tgttgctgaa atgtggcgcg gatattagat atgactagcg tgcattgcgg agtttgtaaa 360  
aaatgcatct tgatgttccg tgcagggcac tcgaaacgat 400

<210> 5013  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-G7  
<400> 5013

gtaccgatca agaattcgcg ggtcgacggg gattacgatg cacgggtcaaa gggaaatggt 60  
taccaaagga gggcggggca ccaatacgac ggctacgact agtctcacat ttgctctgct 120  
ggcgaatggt cgcattccat ttgggtgctct tgatctgggt cggcctggcc atatttttgt 180  
cacaacaaag cgcgattacc tggagaactt gcgttttgct tagctgctat tgagcatgac 240

tcgtttctga tgggactctt tttagtgttt ttgctacatg atcgtgtcgc ctatctggta 300  
ctatgaacta aacatgggaa aagaatggat cagtgttagt tgatccttgg tcaaaaaaaaa 360  
aaaaaagaaa aaaaaaaaaag aaaaggggaa ggaggagag 399

<210> 5014  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-H5  
<400> 5014

gggtcgacgg ggcaggggag agaaagagat gggatttggc gaaaactgct aagtcctaata 60  
gcccttttag tcccggttgg tccaacgaac cgggaccaa gagcggcatt ggtaccggtt 120  
ggttccgtgt aactactttt ttattttctg cagctatttt tttgttgatt cttcctgcag 180  
ctgttttttt agtcccacct cgccaagcga gaggcagtcg cagttgttta taagccctga 240  
gtgcagagat gatgacgaag aggctcaatg ctctgcata ttggttagct tcaagccttg 300  
aggaatacgg tagactgcac agagctatgt gcagtgcagt tgacactatt ccgaaaggct 360  
tgaagcaaata ttaacgagca ttgcgcccct tttttatttt taatgac 407

<210> 5015  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-H6  
<400> 5015

gacgggcca tcaatcgtct ttgttcattg gtaactttac ttggagctat atttttattc 60  
gccacatgat atgtgtcttg cttggagcat cgtgtgttat attagtcttt gcttttttagt 120  
ttatcacaat catccttgct gtacacacct tttgggagaa gcctacttga ttagaatttg 180  
ctagaatatg ctttgtgctt cacttatatc ttttgagctt gatagttttt gctctagtac 240  
ttcatttata tcttttagag cacggagctg acttatcttt gtagaaattg ctagtctctc 300  
atgcttcact tatattagtt tgagagtctt ttagaacaac atggtatttg ctatgggtac 360  
aaaattggtc ctagaatggt aggcaccaa gttgggtaca attaaaacta tca 413

<210> 5016  
 <211> 269  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H9

<400> 5016

gacgcggagt tgttatacac gggcatcaaa aaggaagata ttattgcgtt gcgcgtgttg 60  
 ttaaatttgt atcgacgagc gtacaaataa tggaacatat caaagatttt ttgtttaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaca 180  
 aaaagataaa aacattacct acacatgcat acgacgtcat acctcttcaa taatgtcaag 240  
 taaattcaat tcaatggccg taattaaat 269

<210> 5017  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-A1

<400> 5017

tacgggtcttt aattcncggg tcgacgggtg gaacaaaaag gtctcgcacc ttccatttgc 60  
 ttggaacaca aagaattatg tattgctatg ccatgggttaa ttgtaggggtt attgtttggc 120  
 attcatgtta agtttagttg aaactgtatc atcatgggtt cagtttaaaa gtagaaactg 180  
 tctatcaact gacatgcttt tgttgactgc tatggagtaa ttttgatagc aacaaggctg 240  
 ctaattgatt tggtccttgg tatagcttgt ttattccgag atgatgttaa tttctaagtt 300  
 taatctgttg aattagcatg gttatgctac ctttcaagtt gtaattcaac ggatat 356

<210> 5018  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A10

<400> 5018

aattcccggg ccgacggggg cggtatctct gtctcgatct cccccaatcc aatccgccgc 60

ggaagaagcg atcgacaggc gctcgctcgc gaggatgac taccgcaact ggtcgctgct 120  
ctcctccatg gtcgtcatct ggggcagcgt cagcgccgcc ggctcgccg ggatcttctt 180  
cttcggcggc aaggagaaat tccagggcta tttttctcgc gaaggcgaga ggctaatagca 240  
gcaggacaga gccatgatgg gcaagaacta gtgcacagca cggctcactt tcgacgtgtc 300  
aacatgtgaa tcagacatga aacgacgtat ctctgtggtt tagaacataa ctttctcttc 360  
ctgccaatgg caccttttgc ttctgggccc c 391

<210> 5019  
<211> 379  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-A12  
<400> 5019

aattcccggg ccgacgggga agcggtcggt cgatgccgag acgccgcggc ggcgggagtc 60  
ggcacgcagc aacgaggcgg tcgaggaggc gcggatcaag ctgctggagc tgcggcaggt 120  
gaacaaggtg aaggcgctcg tcggcgccct cgagaccgtc atggacgaca accaaagccc 180  
caccgcgcc cgcaagccgc ggctcaacct cggcgccctga actacgagta cattcgatga 240  
gcatgaagct cgatcgcggt cgctcctcc tttatccccg ctactcttta atcaccatc 300  
aaccgaattt gtcgtcgctg cacacttatc tataattacg gtatcgctta tattctgcaa 360  
ggaggaagat gatggaagg 379

<210> 5020  
<211> 336  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-A4  
<400> 5020

cgggtcgacg ggggggttca gcgcggtgcc gtacgtggtg gcgctcttca gctgcatgct 60  
gtggatcttc tacgcgctgg tcaagaccaa ctccagcccg ctgctgacca tcaacgcctt 120  
cggctgcgtc gtcgagtcct tctacatcct gctccacgtg gtgtacgcgc ccaggaacgc 180  
caggcaccgc gccctcgctt tcttctcctt cctcgacgtc gccgccttct ccctcatcgt 240

cgctgctcacc gtcttctctcg tgccccagcc cagccgcgtc aaggtcctcg gcagcgtcgg 300  
 cctcgcttc tccatgggcg gtcttccgta gcccc 336

<210> 5021  
 <211> 295  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-A6

<400> 5021

aattccccggg tcgacgggat gacatagtca acggcgacgg cggtagccgc gccactgctg 60  
 gtgctggtgg tagcggcggc ggtggtggtg gctgcggtgg tcgcgttcca ccggaggcca 120  
 accgcagaac tcgtgtcgcc ccttaccgc agccttcgag aaggtgatgg acgcgccggt 180  
 gctcgtgacg tgcacgcacc gctgcgcttg tangagagag atcagagcat gaagagagca 240  
 accagcgtga aaaataaaca ttagcacatc agaattgttg ctcgatcccc ttgtt 295

<210> 5022  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-B11

<400> 5022

acggggagga taatgccggt ggccctgcgt ggaggcgag ttggcttcct gctttcacgt 60  
 catcgttcct gaaggtcgat gattctcctt gtatgttctt gtatggatgc ttgctttcct 120  
 tctgtcttct gtttgcaatg ctttgctcgt cgtgaagacg aacagtacaa ataacgtggt 180  
 aaaacgtgaa gatgaaatcg aatagagggc accggcgga attgatccac cgccggtggt 240  
 tgaagaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaattaaaaa aaaaaaaaaa ataaaaaaaaa aaaaagcggc cgctcaaaag gatccaagct 360  
 t 361

<210> 5023  
 <211> 391  
 <212> DNA



ggaatgtaat tttatttaac tatcatggta gttgaacaac attgagaaag ttcctccaac 180  
tcaatcccaa ttaaaagtaa ttatcaaccc aacaaattaa atttagagtc atgagttcca 240  
tatgataatc caagaaccaa atactcaaaa tgtccataac cggggacacg actaaccatg 300  
attagattgt acactctgca aaggtttgcg cacttttccc cacaagactc gatgtcctcc 360  
gttggatttc tcgcactaca tgatgtttg 389

<210> 5026  
<211> 332  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-C5

<400> 5026

aattcccggg tcgacgggag aaaattgtat tggattgaaa taatagatcg caaataaaat 60  
aaaatgcagc aaggatatttt tgtatttttg gtttaataga tctgaataaa aatgcaaagg 120  
agaagtagat cgcaaagcaa atatatgaga aagaagaccc gggggccgta tgtttcacta 180  
gtggcttctc tcgagaaaaa tagcaaacag tgggtagaca aattactgtt gggaaataga 240  
tagaacttca aataatcatg acgatatcca ggcaatgac attacatagg catcacgtcc 300  
aagattagta gaccgattcc tgcctgcata ta 332

<210> 5027  
<211> 272  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-C6

<400> 5027

attcccgggt cgacattcgc ccgcaggaaa gcaacgagcg cgctttccta tttgggggtca 60  
agagtggcgc tgatggtgaa ggtaccacca gtgccaccct ccttggcgga caccttcttg 120  
gtctcaggtg gagctgccat tgccttctta cgcttgccgg tggagctcga tggtgcgctc 180  
tcgacggtag cgcagcactc caaagaggtg ctcttgccgg agtgggcatc agagctcttg 240  
ccggacttgg tcttcttctt cccccgggga gt 272

<210> 5028  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-C7

<400> 5028  
  
 aattcccggg tcgacggcga tgccgatgtc cgagacgctc cagctcctgc agatggggaa 60  
 gggtccccc accgactttg acgcactcat ctgcggtagt ggagtgagg tgtactacc 120  
 gggctcggca cagtgtttg atgcccacgg gaagctccag cctgaccagg actacctgca 180  
 gcacatcaac caccggtggt ctacacgacg cgccaggcag accatangga agctcatggc 240  
 ctacacaggac gggtccggca atgtcgtcga gctgacgtg gagtccctgca atgcgcattg 300  
 cgtctccttc ttctcaagg accctaagaa ggtccaaact atcaataaaa tccg 354

<210> 5029  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-C8

<400> 5029  
  
 tcaggaattc ccgggtcgac ggggacgaga ctctgatcga acaactggag ggaagtagtt 60  
 tggatgggga tgagcccgtg atagaactgg aggaaagtaa ggaacctgag acagaagtct 120  
 cagcaaattg ttgatttagc tgtaaaggcc aagggcgcca tctctgattg tagaaggtag 180  
 caatactgtt catgtaaata caaggatggt gctattgtac ttgtactcgc cgtcctttgc 240  
 ctgatgaagc agaagagctg tccaacaccg ccgttccttg gggagtcaga caaaacaaaa 300  
 cctgtgaaaa caaaaacttg ggggtaacaa cctgacaatt tgggtttggg g 351

<210> 5030  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-D11  
  
 <400> 5030



gtacagggtca ggaattcccc gggtcgacagc tggcatagat tcatcggcct tgacctccat 60  
 ggggacggca tcaaaatctt cctctgatgc cttgtttttg cttttggatt tcttattgtc 120  
 atcgtcgtcc tcgtaggact cgctcttgct tttagatttc ttctcggcat catcatcctc 180  
 ggacgagtcg cttttttctt tggatttctt ctcatcatcg tcatcatcct tgttttccaa 240  
 tttcttttcg ttcttctcat catcatcgtc atcatccttg tttttcaatt tcttctcttt 300  
 cttctcatca tcatcatcat tgctcgtcgtc gtgcctcttg catttagact tgttagcttt 360  
 cttctcatca tcatcatcat catcatcatc cttgtttttg gatttc 406

<210> 5031  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-D12  
 <400> 5031

ggtacaggtc cagaattccc gggtcgacgg ggccgacaag cagtacaacc tccacatgcc 60  
 ccaggagcgc caccagatcg gcccgacca gatcgaggcc ctctaccagt acgccaagtt 120  
 ccagtacgag tgcggggatgt actcggacgc cgccgatttc ctgtcccagt accgcgctct 180  
 gtgcaccaac agcgagagga gcctcagcgc cctgtggggg aagctggcgg cgagataact 240  
 gatgcagaac tgggatgtcg cgcaggagga gctcaacagg ctcaaggaga tgattgattc 300  
 cagcagcttc acctcgtcgc ctgtcaacca gctccacagc aggatatggc tgatgcactg 360  
 gagcctcttc atcttcttca accatgagaa tggaaggaac gggatcatcg aact 414

<210> 5032  
 <211> 317  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-D5  
 <400> 5032

aattccccggg tcgacgggga ggttgagaag ctgattggca ggatagtgaag gtggctgaag 60  
 cccggtgggc atattttcat cagggaatcg tgcttccacc agtctgggga ttccaagagg 120  
 aaagtgaacc cgacgcacta ccgggagccg aggttctaca ccaaggtgtt taaggaatgc 180

cactcctatg accaacaggg gaattccttt gagctttctc tggtaacttc caagtgcatt 240  
 ggagcttatg tgaaaagcaa gacgaaccag aaccagatat gttggctgtg ggagaaggtc 300  
 aagtgcacag aagacaa 317

<210> 5033  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-E11  
 <400> 5033

aattcccggg ccgacggggg gtgaactact cctcttttgt catggagacc gccgggatga 60  
 tgaagatggc ctccgatgat ggtttcctcc tccggcaggg tgtcgaaatg ggctctcggc 120  
 tggtttttcg tggctacaga ggcttgccgc attttgggat ttatcagaat ttttggcgtc 180  
 ggattcacat caggggggttc tcgagggacc cacaagccag ggtggcgcac ccaggggtag 240  
 ggcgcgcctc cactctagt ggttcctcc ggactcttct ggcccaactt cgatgctcct 300  
 gggcttggtg tggccataa aaaatcaccg taaattttca gctcgtttgg actccgtttg 360  
 atattccttt tctgt 375

<210> 5034  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-E12  
 <400> 5034

aattcccggg ccgacgggaa tcaacaggat caggctctaa cacatatgtt gagactgaga 60  
 cacttgctaa atttgagctg atggatggcg cccagtcag aggagaatct attccagtaa 120  
 ggctattctt gactccatac gagctaaccg cgacttaccg caacataaac aacaagttct 180  
 gtgtcaagta ctacctcaac ctggctcctg tggacgagga agaccggaga tacttcaagc 240  
 agcaagagat aaacatgttc cgtcttgacg aaactocaca gccttcatac acatctatcg 300  
 ctgggaacct ggctgaatc gtgtgttgca agagtttagca atttggcatc ctgttatgct 360  
 gtatataact ctccaggaga gcatgc 386

<210> 5035  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-E6  
  
 <400> 5035

aattcccggg tcgacggggg aggagaagct ggcggaggcg aacgagatcg ggtacaaggt 60  
 ggctcgccccg ctccgcccgc acgagaagcc cttcaagccc tacgagccccg tcttcgccgt 120  
 cgtccagatt gggtcgacc agttcaaggt gagcaacggc gactccatct tcacggagag 180  
 gctcaagttc tgcgatgtga atgacaagtt agtttttagat cgagttctca tgcttggtc 240  
 acaagctcaa acaataattg ggagggcaat tcttactgat gctaacggtc atgctgtcgt 300  
 ccaagaacat gctccaaaat gcaaagttaa catattccag aagaaaagga agaaaaatta 360  
 acgccgaaca agggg 375

<210> 5036  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-E9  
  
 <400> 5036

ggtacaggtc cggaattccc gggccgacgg ggccatcagc gccttcgtct ccggcgccac 60  
 cgtttatggc tacagaggaa agagcattaa gtctgccctc atcggtggtt ctacgtggc 120  
 attcacatct gccatcctgg acgttggtgg taatactacc agagtggaca atggaaaagc 180  
 gtaccatgca tacacaacgg aaaagaagcc cgagcctgcg cattgatcaa ggttgcttac 240  
 ttgtagcaca aatcatgcaa accagctcgg tgaatttttg agctgatgcg tgctgttatg 300  
 tctgttttgc tgatgcacct agttcctttg caaagctgta gtaacttggt ttgctcgagg 360  
 gcaatacaac agacctggaa taaatatctt gctttatttt gcttagaaaa aaannnnnn 420  
 nnttanaaaa aaaaaaaaaag gggccgc 447

<210> 5037  
 <211> 403

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-F11  
  
 <400> 5037  
  
 aattcccggg ccgacgggaa catgtaccag tttgtgattg cttgtaaagt aaagcccata 60  
 aacacccaaa acgggtaata taatagcatg gaacaatcaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaataa acaaaaaaaaa aaaaacaatc aaaaaaaaaa 180  
 aaaaaaaaaa aaatcaacaa aaaaaaaaaa aaaaaataa aaaaaataaa aaaaaaaaaa 240  
 aagggtacc caaattgact caactttaaa ttcctctgat taatacatcc tgcgctcctt 300  
 acataatact ccaaacttat taacaacact gtcattgaaa aaatgtatca taggaaaaca 360  
 cctgcatttc gaaaacttaa acccatttta aaaaccaccc ttt 403

<210> 5038  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-F12  
  
 <400> 5038  
  
 ccgggccgac gggaacacaa taaaaacca aggcttaacc gcagttcgtg tgttgcttat 60  
 attatgtgtt gctattatat taccattatt aagtgagggg ggaattgatt agtgccagtg 120  
 tttgtttttg ttctgtttgt cgtgggtacga ggaaagatta ccaagtagat aaggcttagt 180  
 agcagtttgg ctgtacctaa tcagtaccct tatttcattc cgactagtaa gtaaaaaactt 240  
 gttttttcct caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaagcggggc ctctaaagga tccaacctta ggtacccatc tatgctacat 360  
 caaaa 365

<210> 5039  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-F5  
  
 <400> 5039

cgggtcgacg gggacggcca gatcaactac gaggagtctg tcaaggtgat gatggccaag 60  
 tgatccagcc gatgttcatg tccggtggta ttattatctt taccggggag gaggaattg 120  
 tgcattgcat attagtagta aggaatgcgg ctctcgcttc cttgtctttg ccccgaaacca 180  
 gaagaagcgt actagtagac gtagttgctg aagagcactc atggaatcct cctccccctgc 240  
 tgctaccctg tctctctccc gtgtgtcatt gaaacatctt tctttctgtg tgaaaaaaca 300  
 agaaaaatta aaaggatcaa accaagctct tcaaaagcat taaggcaaag 350

<210> 5040  
 <211> 185  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-F6

<400> 5040

gacgggttcc aaaaaataa taaaaagaat tcaaaaagt aaaaaagaa aaatgaataa 60  
 gcagcagctc catgtgaatg aaccatgcgg cagctctaga ggatcagatc gtacgtcgtc 120  
 gtgcatgcca cgtaatagcg cttcaatggc gcccggtata ctcatccac agggcgatc 180  
 ttac 185

<210> 5041  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-F9

<400> 5041

attcccggtt cgacggggga ttgatgggac cacaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagcggc cgcccaaag gttcaaacct 180  
 tacttacgct tgcattgcaac ttcaaacctc ttcaaatg ttaccaaact tcatttcact 240  
 ggctttcttt ttaaaacttc ttaacgggaa aaacctggc ttaccatc ttaatccct 300  
 tgcacaaat ccccttttcc caagctggct taatacaaaa aaggcccgca cctttcgccc 360  
 ttcccaaat ttgccaccc taaatggcaa atgggaaccc cc 402

<210> 5042  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-G11  
  
 <400> 5042

attcccgggc cgacttccac caaaacgata tccatcatct catcgaaaga cgggacacct 60  
 ttgcctctat cactttcaaa atggaatcag gagtcatagg aagcaaagta atatttttat 120  
 ccttatgaac aagagtatag tgattgtttt taccatgggtg tacagaattt ttatcaaagt 180  
 gccatgggtct accaagtaat aaggaaatg cttgcatagg taccacatca caatcaacat 240  
 aatcagcata tgtaaagata ctaaaatgca cacgaacagt acgtgttacc ttaaccttgc 300  
 cgctgttgtt gaaccattgg atgtagtaag gatgtggatg tgggtcttgtg gtgagagaaa 360  
 gcttctccac catctcc 377

<210> 5043  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-G9  
  
 <400> 5043

aattcccggg tcgacgggaa caccatctgc gtcgccgcca tcctcggctc cacactcaac 60  
 ggcgagttcg aggacgtcaa gatgctcaac gacctcctcg tcgccaagaa tgcagagaca 120  
 ggggtgggaca cgccgattca cgtggacgcg gccagcggcg ggttcatcgc gcccttcac 180  
 taccgggagc tggagtggga cttccggctg ccgctggtga agagcatcaa cgtcagcggc 240  
 cacaagtacg gcctcgtcta tgccggcgtc ggggtggatca tttggaggaa caaggaggac 300  
 ctgcccgacg agctcatctt ccacatcaac tacctcggcg ccgaccaacc aaccttcacg 360  
 ctcaacttct ccaa 374

<210> 5044  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-H11

<400> 5044

aattccccggg ccgacggggg atgaatgtgg taaactaaaa atcaaagact ctaatcatac 60  
aagacgctcc aagaaaaaca catatcatgt ggtgaataaa aatatagcct caagtaaagt 120  
taccgatgga cgaagacgaa agaggggatg cctccccggg cataccaag cttaggcttt 180  
tcgttgctct ttaattttac cttgggggtgc cttggggcatc tccaagctta ggctcttgcc 240  
actccttatt ccataatcca tcaaatcttt acccaaaact tgaaaacttc acaacacaaa 300  
actcaacaga aaatctcatg agctccatta gtataagaaa acaaaccacc acttaaggta 360  
ctgttatgaa ctc 373

<210> 5045

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-H5

<400> 5045

aattccccggg tcgacgggat agcatacacg tatggtgaac cgttctgtaa tgatgttgga 60  
gcatgaggta tttattgatt gtcttcctta tgagtgggtg cctgggacga gcgatgggtct 120  
tttcctacca atctatcccc ctaggagcat gcgcgtagta ctttgtttca atgactaata 180  
gatttttgca ataagtatgt cagttcttta tgactaatgt tgagtccatg gattatacgc 240  
actctcacc ttccatcatt gctagcctct ctagtaccgg gcaactttcg ccggtaccat 300  
aaaccaccca tataccttcc tcaaaacagc cactatacct acctatcacg gaat 354

<210> 5046

<211> 412

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-009-Q1-E1-A4

<400> 5046

gggtcgacgc ggagaagaag aagaccagcg agaacgtcaa ggatcatctac gcccgcgcca 60

agcagtagcg cgaggagtac gatgcccagg acaaggagtt ggttcagctt aagcgtgagg 120  
cccggatgaa ggggtgggttc tatgtcagtc ctgaggctaa gctgtgtttt gttgtcagaa 180  
tcagaggtat caatgccatg cacccaaaga ccaagaagat cttgcagctg ttgcgtttga 240  
gacagatatt caatggagtg ttctgaagg ttaacaaggc caccatcaac atgctccgca 300  
nggtcgagcc atatgttgca tatgggtacc cgaacctgaa gagtgtgagg gagttgatct 360  
acaaaagagg ttatggaaag ctcaacaagc aaaggattcc tctggacaac aa 412

<210> 5047  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-A6  
<400> 5047

attcccgggt cgacgggggc ggcaaccctg gacctcgact tcgacgacat ccagcgcgac 60  
cgcgagtgcg tcatgtgcct gagegaggag atgtcgggtg tgttcctccc ctgtgcccac 120  
caggtggtct gcgccaaagt caacgacctc cacgacaagc aggggatgaa ggagtgcgccg 180  
tcgtgccgga cctcatcca gcgcagggtc tgcgcccga ccgtgggctg ctgagtgaga 240  
agagagagat tttgcgttcg cgtcgccgtc gctataccgt ttttcctttt ctttttgatg 300  
attgcccagc ttgaatttga tggagattgg aaaaaagaat aacgagtgtc ggtcggacga 360  
ataacgcttg gtcgagacat cgtacacccc ccaaag 396

<210> 5048  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-A8  
<400> 5048

attcccgggt cgacggggga cggcacagat ggcgagcgac ggcgcggtga ccacgcccgc 60  
gaaggtgacc ccgaagaagg ccaacctcct tgacccccac tccatcaaac acctcctcga 120  
cgagaccgtc gccgaggtcg tgaagggcaa gggctatgtg gagaacacgc ggctgggcaa 180  
ctggaagctc ctgatcggga cggccgtgat cgccatcgcg ctctcgcgc agttctaccc 240



gaagaagttc cgcgagaacc gcgagttcct gtcggttgc atcgcgctgt atgtggtgat 300  
gaacgtggtg ctactgatcc ttagctatac caaggaaaag gatgccatca tcttcacca 360  
ccctcctgct ggttctttca ataacactgg ccttggtata tcttcaaag 409

<210> 5049  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-009-Q1-E1-A9  
<400> 5049

taccggtctt taattcacgg gtcgacggg aatacaactt ggaactcctg caatagagaa 60  
gacaacacta aaggtaattg tgtgaggtgt tagttttagg tgccctcgcc ttgcacaaga 120  
ggaaatagtg cataacactt gatgggttct cacacacttc tctcatctca tttttggtgg 180  
caaatagtagt taagtttttc ttgtcgctca tcatggaggc actcaatttt ggcttgtggc 240  
actcactcta tttgtggtgg ctcgctttct cacttttctc tccacgatgg gtggcttgc 300  
tgtcggcgat cacttgactt ggtgacatan gtcgtagcac gtactccttt cccttcactc 360  
tgaagctata gtgattggtt cgcccattgt agatgacgca ttggtcaaatt ttccatgatc 420  
gtccaaga 428

<210> 5050  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-B12  
<400> 5050

acgctgtcgg tgccggtcca gaattcccgg gtcgacgggc ggatgcgatt cctcatgcaa 60  
atagttataa catagggtga tatagaacta gtcocaaatc atcaatgtaa tgtaggcatg 120  
tattccgtaa atagtcatac atgcttatgg aaaagaactt gcatcacatc ttttgccta 180  
ccctcccatg gcaacggggg cctagtggaa actaagggat attaagtcct acttttaata 240  
gagaactgga ccaaagcatt aacacatagt gaatacatga actcctcaaa ctacggtcat 300  
caccgagaag tatcccgatt attgtcactt cgggggtgtc ggattataac acataatagg 360

tgactataga cttgcaagat aggatcaaga acaaacatat attcatgaaa acataatagg 420  
 ttcagatctg aaatcatgcc a 441

<210> 5051  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-009-Q1-E1-B6  
 <400> 5051

attccccgggc cgaccttgaa ctttatgttc atgcccattg acacgatgtc gatcctatca 60  
 tgaaacttct tgtaataata actattttct tgatataata tccattggta tcggtgaatt 120  
 gatcctttgc aatttgtggtt ccgaccatat gttcttcttt gattccatat ggaacactgc 180  
 tacgatagca taggtatgac tatcttgatt ctgtcataaa atcgatcatc atgtacatgc 240  
 atgatagaaa acgtgaccta ctgtgacaaa cacgtatcat cacggaagtg tatttttttg 300  
 tagtggaaga ggtagcacac gtctccgggg tgtgggcccc ctcatagacg gtgccgccgc 360  
 aggacactag aggggggaaa tagccgcacg aggtctacgc ggagggatcn tgctatgggt 420  
 t 421

<210> 5052  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-C3  
 <400> 5052

gggtcgacgc gctcgacgag cagatccgtg atcatggcag gctcgtcagc tgggcaccgc 60  
 aggtggaggt gctcgccac cctgcggtag gcgccttcat cagcacagc ggctggaact 120  
 ccacggtgga agccgtgtcg gagggcgtgc cgatgatatg cctcccgttg cacggagacc 180  
 agttcagcaa cgccaggtac gtgtgcgatg tctggaaggt gggagtggag atcgaagcgt 240  
 catcagcggc tgggcagaac ctggagagag ggaagatcaa ggctgccatc gacaagattg 300  
 tgcacgacaa agggattaga gagaggatgg atgccttcaa attagctgca gatgaagcag 360

ttaactccca aactgaggtg aaag

384

<210> 5053

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C5

<400> 5053

aattcccggtg tcgacgggtt ggatgctatg atcaatttga tgcttgataa ttgttttgag 60

atatggatgt agtgatatta aagttatgct agttgggtga ttatgaattt aaagaatgct 120

tgtgttgaag tttgtgattc ccgtagcatg catgtatggt gaaccgcttt gtgatgaagt 180

cggagcacia ttttatttat tgattgtctt ccttatgagt ggcggtcggg gacgagcgat 240

ggccttttcc taccaatcta tccccctagg agcatgcgcg tagtgctttg gtctttgatg 300

acttctagat ttttgcaaca agtatatgag ttcttttgac taatgttgag tccatggatt 360

atacgcaatt ttacctttcc atcattgcta gcttc 395

<210> 5054

<211> 401

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C6

<400> 5054

attcccggtg cgacgggaga gaaaatagag tccaagtctc tcacgttctg gattcagatt 60

cggactgcac agacatacct gactcaaac gccacaact ttttcatacg gactccgaat 120

tgggtgattc tttttttgtt ggaaactaga ttctgtgctc tttccaacac aattggattc 180

acctttaaat tcgtccggag cattgagtta tggtcgaaac aatctgacgt tgcaccagaa 240

tccgagtcaa actacaagtc caaaggtgtt gcatcacctc cacttgggcc catgtgcctt 300

gtacgaccta gggttggttt taggctgcct tgggacgtcc tcccacctcc ttggacgcca 360

ccccttgctc ctatataagt agatccatct agtagctttt t 401

<210> 5055

<211> 428

<212> DNA



<400> 5057

cccgggtcga cggggaacct tggaagcagc ccctcccaa ggacgatgac actattgtca 60  
ttgagatctc acaccaaggc caggtgacca tgctagcaaa cgaaccctgc aagtcaatga 120  
gcctcagtga cccgttgctg tcacacggcc acaacgacca cagtgcgaa cacaagaacg 180  
acgtggatga cgaggagtgg gaggatggca ggaggaagtt tggggctgcy gagaccttca 240  
agctccctga tgagatcgac attgctcatc tcagctgagc tgcatatcca ttcttatgac 300  
aaagatcata tcttgccggt tcacaatatt tgtccagtaa agtgatatca ctatatgcaa 360  
atagcttcat gcaaaaccct gtatagctgg agtttagtga accaagcgcg gaacaactaa 420  
ttttaatt 428

<210> 5058

<211> 305

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-D8

<400> 5058

aattccccgg cgcacgggaa aaaggagaag attcaggtct caggtgggtg agatcgacgg 60  
ggaagaagaa gatgcaacac aattatatct gggaatatag aattgtacta cgtagtagtt 120  
taccgtgctg ctttcttttc ttttttggtg gtagatctga tgtctctacg tatgatagat 180  
accgagtgtg tgggtggtgg tctttccatt cttttgggtt cgtgggtgcc atgtaaatgt 240  
tgggtgatcg attccttatg tttttgcctc ctgcggtaaa taaaagctaa tgcagattcg 300  
tgatt 305

<210> 5059

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-E3

<400> 5059

gtcaagaatt accgggtcga cgcgcattgg gaccttaaaa gagcaattga tgtggacatt 60  
ggagccaatc cctctgctga tgggtggagg gatgatgagg gtgtccatta ccaggccgtg 120

acggtggttg acattgttga cacgttccat cttcatgata acactgcttt tgacaagaag 180  
cagtttatct ctcacatgat gcgctagatc aagaagctct ctgccatgct tgaaagggat 240  
gacctagatg ttttcaagaa gaatgttgag tctgccacat agtatcttcc tatcaagctc 300  
aatgaccttc aattcattgt tggcgatagc atgcatgatg atggcagcgt ggtgttcgcc 360  
tactacaagg agggagctgc tgatccaact tacctgtact ttgcacatgg gctgaaag 418

<210> 5060  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-E4  
<400> 5060

gggtcgaggg gcttgctaac taaatggcaa ttggcacata caattcgtcc agttgcttct 60  
cgtgggtttt cataaccctg ctgcgcaaaa atgggatatg catttgaaat agatgtccga 120  
gttattacgt atatcatgat cgatacagaa atcgatcgag ttatctgttc ctttaccocaa 180  
gaaaaagtat ttctattttc catgtccaat cgcagatccc agaatttcta caataaatta 240  
gataggtagc taagctaata tagttcccta tacacgaata tgttgtcatt ctactgcaac 300  
agttgtactg caatgatgaa taccttaaag taggtataaa tagaaagaat ttgctaaaa 360  
tggaagaggg ctttctttct aaaaaaagat gcttgctaata ttgattaata ttaatatcgg 420  
gagatcgaat gaattta 437

<210> 5061  
<211> 416  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-E6  
<400> 5061

aattcccggg tcgacgtcga ggtaaaacga aggaacctac actatcatca atgctgaaga 60  
agaaagttac cgcaaagat aggatttcag ggaggcttct aaatggtcgt gctggggacg 120  
caacaataag agaagcttct aatactgagg atatgaccta cagggaagca ttcccaaatac 180  
agtggcagtg aaagcaccct gagtaggtct ttcttcataa ttaacagttt tgttttgctg 240

tgctgttgca tgcttgaagt gcttgaagta cgcgggggcac tgaagctgct tcgaacccgt 300  
 gcatggaaaa tttcagaaag gaaagtcgta gaccatttgt attggcagtc ggattgagaa 360  
 tccaaatcag aacaacgcga cagtaaataa gcactcgatt ttgtgaacat gccaaag 416

<210> 5062  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-009-Q1-E1-E7  
 <400> 5062

attccccgggc cgacgggagtg tccctgtgct atggagttca tctacgtcgt tcttccggtg 60  
 ccgtgtagtt cgtgcgatcg aggccccgtc atgttcatta aatactgtac atactgtcta 120  
 gtagcaccgt gtgtgcggtg tggcctcgaa tctcgatgta atataagacc tatgtaattc 180  
 gctagcatca ataaagcggg tgtttctata ccatgttggt gtgtattgcc agaagacttg 240  
 atctccgggc tggcaatgca aggtaaaccg gttgctctga gccgggggtgc cacatcccca 300  
 taaagctaaa tgtggtcgca ctgagaataa ctcgattcag tggcaccatg actcgattaa 360  
 cattatattc aagtgggatt attatcaggt ttaacttgaa aataaaatca nccaag 416

<210> 5063  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-F3  
 <400> 5063

gggtcgactt ccaccaaagc gataaccatc atctcatcga aagacgggac acctttgcct 60  
 ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagttt ttcatagttt 120  
 agatcgagtc tgttcttcat acctacagtc cacgaaaaag ccacaaaaaa aaattagggt 180  
 tagttcatca tatccgaacc aatctgagcc ttgcatatc ctttttaggg tttttgcttt 240  
 gttgaatttg cggttgcacg gtcgtgtcaa gttgctgggc ttagagtcta gtcttttaga 300  
 gtttcgagtt ctggtcataa gttgtcacgc cgccgcccga ccatcatcat cgctttacca 360  
 tctaccaccg ttgcttatcc accaccgctt tgaatccgta tccatatacc aacaacgctg 420

ccataaaata acggca

436

<210> 5064  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-009-Q1-E1-F5  
  
<400> 5064

aattcccggg cgcacgggtc ggaatcgggt tgactcccct ttagtatttt tcttttcttg 60  
attgcttctt cagatccgac ttgtgctagt agcacttgat atcttctttt cacgtacata 120  
gcaagcgggg atcaaactct gtagcttacc atgatgagta ctagtacttc ttgataattt 180  
ggatatgggct agctgactag ctgactcttc acgcggccgg ttcagacggc gcaacagaca 240  
cgggtggctt agcttggagc aggcgaccgc gacccaacat gcaacaagag tcacccgagt 300  
ccgtgctcac gcccggtccc ttctccaagt cgcggccggg ttgaccaatc cattccagtc 360  
gtgggtgatc tctgattttg tgcttgactg taecgcgctg gattcgatcg acagcgtgt 419

<210> 5065  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-009-Q1-E1-F7  
  
<400> 5065

attcccggtt cgaccagctc ctgcagcgta gtgacgccag cgagaatgtc gtcacgccc 60  
gcgaaggact tcaggaacgc cggctcgtcg cgatggccga cgccgtgaat gcccttgtga 120  
gagccctcgc gtgcccgta gagctcgttc gagggctctg cggcgcaccg gggcatctct 180  
gctgcggctg cggcttcgtg gcgggacctc tctagtgttt ccgcggcctt gatctttgct 240  
ggctgggttat atgtccaccc taaactcctc ctaccggtca tgggtggaatg acttgacagg 300  
aaagaccagt ttgtgggtg atgacgagag gaactgtgaa gtaattttcg agtgggtagt 360  
ttttatagcc cgatgctaag tgtgaacacg tattagtttg ataggtgtga acagatttg 419

<210> 5066  
<211> 379



<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-F8  
  
 <400> 5066  
  
 tccccgggccg acgggatcat gtatgctcct gggaagtggg aagaagcatt agacattgaa 60  
 gcgacgctct acactgggtct tgttgtatgg tagtcagtgc taagtttctt aatgtcattt 120  
 catatatatta tcctttccat tttgagtcgc tgaaactgct gagtgatgtg cagtttgctc 180  
 tgttagtcgc tctgtcactt tcacttttca tattctttgt tgtgtagttc ctcatactgc 240  
 tctttcttcc tgagtctcgg aaagaataat aaagagccat gtgtaattct aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaattaa aaaaaaaaaa ataaaaaaaaa 360  
 aaaaaaaaaa agcggccgc 379

<210> 5067  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-G1  
  
 <400> 5067  
  
 ggggtcgacgg gacgctcaag aacgtgaccc cggcgctgca cccggagatg atcctggcgg 60  
 cgaccaacaa cggcgacatc gtggacgcct aagcaaagca atgagccacg gacaccaagg 120  
 cgtacgtacg ctggtgtttg gggggcgcaag atcaataaga tggttcgggtg aaacggagga 180  
 tgcttaggga cgagggcttg tctttgtgat ttgtcagact cgtgtttaat tccgatgttt 240  
 gtcttttagtt ttcttgtgtt agcgtatatt gttcatgcca cctgcccgcc atgtgctctg 300  
 ccctgcctct gcctcgcggc agttccatgg atgatgaatc cttctggaac aagaggaggg 360  
 aataaaaagg ttgagttcg 379

<210> 5068  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-G11  
  
 <400> 5068

attcacgggt cgacgggacg gtttatacta tacatctatt ttgctgatcc gacatgccac 60  
 aggtcccgag gcatcgattc gtggatgttt gtgatattcc catcgtgtga aaaccaaagg 120  
 catgttcac tactagtact actgacgtgg aggcagtacc tactaaagta ctatatttca 180  
 tatttataaa tccttcaatg gctgttgagc actacatcta ctgatccatc aagccatcac 240  
 gtcaaggcgt gtgccgatct caacacagag atcaaggaat actacagata caagatcaga 300  
 tcaacatggg tctccagacc agcgatgacc cggacacgga ttaattaaac caaccatgat 360  
 gtggaggaag actcggattg gactcggatt ctgacatctc tg 402

<210> 5069  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-G12  
 <400> 5069

ccggtccaga attcccggt cgacgggctg gcggagaagt tcatcgcgag gttccacgag 60  
 aagttcttgc tggagaagca ggagtcgtac cggaggtacc aggagatgat cgccaggagc 120  
 atatgaacca cgagatccat gacgacccat cgagggttca tccattgcgc cgggcggctt 180  
 ggtgtccgga ctctgagcat ccggagtact acgtgagtag gaatttgatg ttgagcagtg 240  
 agtaattcat ggtgcagctc ttcgtggccg tgccctgaaa ttggagtcgt tttcgtctgg 300  
 ggcgtgtcgt gtgtcgtgtg tcgtgtgtcg tgtgtgcgtg tgatgattta atttggtgga 360  
 ttcatgtaag gttgggttac ggtcgaagca aaattattct tcgggaggac aaaa 414

<210> 5070  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-G3  
 <400> 5070

gggtcgacgg gctatccgag aaggtctcca agatgcatgc ctagtgcagc aacaacgacg 60  
 gaagtcggca ccacatttct catttctgtc aggtacaccg gatgctgata gcaaagcagt 120  
 gcactgcaag ttggagatgg tttagcagag gcatgttctt gtcaagcgtc gttgctgcac 180

gcaggggctg gccctgcatg gattgatgta tttttacact caagctcgca atgtaacacc 240  
gagatttggt gttctctagc atctactact atacgtgatt gcaacgaacg gaccaagaca 300  
tctgatgaac acttgtcatg tttccctgtc gaacatcctt aatatatcaa gaagcgttgc 360  
tgctctgtat ct 372

<210> 5071  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-G6  
<400> 5071

cccgggccga cggggacgcg aggatagtta gttcatcgga agtagtagta gttttcttca 60  
ttggtacgtt aaataaagag tttagtttcg tatttacaca atttaaatg attgttatgg 120  
agagaataag aaaaccactc cactatatat tagtcgtata cacgagtact atatggacgc 180  
agcttcattg acttttagtgc acttgccctt gggtttatga taggtggggc caaaatgtgg 240  
ctggcccacc tgtcatcacg ccaaaagcag gtgcagttaa gacactggag ctcaagtccgt 300  
actacagtat atatataagc tggagcctca gcacttgctt tctagggctt gcactctcca 360  
cactctcgct gcactacata tatatatata cgctgg 396

<210> 5072  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-G7  
<400> 5072

aattcccggg tcgacggggg tgcccataag gcaggcttgc cggagcaaag ggcagtgaac 60  
tagaggcgga tcgttggtca ggctggccgc gccgctgctg ctgctgctaa ttgctctgta 120  
agagtgtaca atatggaaag cgtccttgag ttatacagaa cgtgccagct tccttttgtg 180  
atcggggaaa gaggggaatg gggatggata acacggaaga gcaacgcaat gcatgcatcc 240  
tatcttcaat agtctgtaaa agtttttggg atgggcactg ccggtaagca tgaaatatgt 300  
tggcacttgg cagtcttgta ttgttttgat ttcgttgtgg tttgaggcga gtacttggat 360

taccaacacg aagcaacggg cttgagggag tgcagatact tcgttgatgc tcgacgaatg 420  
ga 422

<210> 5073  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-009-Q1-E1-H11  
  
<400> 5073

cggtcgaaat tcacgggtcg acctccatct cggagttgtg gttccatatt catttggttg 60  
ctgggaggca ggcgaccttc gaggcacggt tacttcgacc actttctcct acgacaacat 120  
aactggatgg attactaatt gcagcgcata aattatgttt cattagcata accatcgcat 180  
aaccaggcat gaatgtccca tcattatcag gggtttattct cttcaactat ttttgcgctc 240  
atgtgctcat aaattttatt attagagcaa aatcagcata ttctctttta ctagcacatg 300  
cccacaattt tttccatta tagccaaccc gcatattgtc ttttattggc acgtgcaagt 360  
tatctccagc aataatttgt ggagtccttc attctgctca taattctoga nacaacctcc 420  
ttattctcaa ataacctcct taatt 445

<210> 5074  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-009-Q1-E1-H5  
  
<400> 5074

attcccggtt cgacggggat gacaacactt cctcaaaaca atcataatat gatataacaa 60  
gatggatatct cgctagccct ttctgagacc gcaaaacata aatgcagagc acctttaag 120  
atcaaggact gactagacat tgtaattcat ggtaaaagag atccagacaa gtcataactca 180  
atgtaaacta acagcaatga atgcaaatga cagtgggtgct ctccaattgg tgctttttta 240  
taagaggatg atgaatcaac ataaaactaa atagataggc ctttcgcaga gggaagcagg 300  
aatttgtaca ggtgccagag ctcggttttg aaataggggt gaataatatt ttgagcggtg 360

tacttttcatt gtcaacataa caaccaagag atggcgatat cttccatgct atacacatta 420  
 tacgcagttc ccaaac 436

<210> 5075  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-H7  
 <400> 5075

aattcccggg tcgacggggg gacacagagt tcttctcgcg ccaggacccc tacgtcatcg 60  
 tcgagtacgc caacaccaag ctccgcaccc gcacctgcac cgatggggga aggaaccggt 120  
 ccttcgacga gaagtttcat ataccactca tcgaggggct ccgtgagctg agtatcaacg 180  
 tgtggaacag caacacaatc aacactgatg acttcattgg cagctgcagg gtgccactga 240  
 acaaggtgct cagcagtggc tacgatgggt cctcgtggcc cctccagaca cgccatatga 300  
 agtctgctgg ggaagttaag cttatcatgc actttgatgt ctcagcaatg aagaacaaga 360  
 tggcaggtaa aacttctggc cagtacgctc ctttcgcata cggcgctcc tcagcttcat 420  
 acccagc 427

<210> 5076  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-009-Q1-E1-H9  
 <400> 5076

gtccagaatt cacgggtcga cggcgaggtt gaaaagctga ttggcaggat agtgaagtgg 60  
 ctgaagcccg gtgggcatat tttcatcagg gaatcgtgct tccaccagtc tggggattcc 120  
 aagaggaaag tgaacccgac gcactaccgg gagccgaggt tctacaccaa ggtgtttaag 180  
 gaatgccact cctatgacca agaggggaat tcctttgagc tttctctggt aacttccaag 240  
 tgcattggag cttatgtgaa aagcaagaag aaccagaacc agatatgttg gctgtgggag 300  
 aaggtcaagt gcacagaaga caaaggcttt cagagattcc tnggcaatgt gcagtacaaa 360  
 tccactggaa tcttgcgtta tgagcgcgtg tttggggaag gttatgttag caccggtgga 420

ttcgagacca c

431

<210> 5077  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-010-Q1-E1-A12  
  
<400> 5077

aattcccggg tcgacgggga gggccatgcg ggccctacgg atggtctgat acagcgctcg 60  
ttgtcattc agtaagccag gatcatcgga cacctatgag caccttcgag agactgagac 120  
gacatgaaat ggtaaggcca cgcttgggag ctctggtttg tttcacacct gtattaagat 180  
acagggtgtaa tttactcgtc atcggaaca atgcgtaaag tacaggcgta atgaaaccga 240  
gggcccggagg tctataagta aaaccggcag gttacgcgtg taatttgaga gaccggtgta 300  
tattttacta gtcgaaatcg accaaccaag cgcttcgccc gagaccatct gcttttattt 360  
acaagcatca gttttacatg cggttttggt tgggaaacga cgat 404

<210> 5078  
<211> 239  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-010-Q1-E1-B12  
  
<400> 5078

cctatagtga gtcgtattaa attatcgggt ctcatgatgt aacaccgaat catcattgta 60  
atctccatat gtagatttct ttgtactcat aaatatatat gcttaagtcg ttggacatca 120  
actaatcact tagccgctca ggtgaatcta ttcgtagttc agagtacggg ataggagggtt 180  
agacgtttac tggtgacgtg gtgtactcca tcacctcatg atttatacat gatgtcctc 239

<210> 5079  
<211> 192  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-010-Q1-E1-B4  
  
<400> 5079

tagtgagtcg tattaagtgc cggatgatat gctgttgtgt tttatatgtc tatcccatca 60  
 tatatgtgtt gttatttgaa ttgaattgat ttgaacacaa acaggataga gaataactag 120  
 caaatgcaaa cgatgccgac ggcctagccg tctgcataag gccaacgtga gctcccagta 180  
 gctcgagtt aa 192

<210> 5080  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-C12  
 <400> 5080

ttcccgggtc gacgggatga catagtcaac ggcgacggcg gtagccgcgc cactgctggt 60  
 gctggtggta gcggcggcgg tgggtgggtgc tgcggtggtc gcgttccacc ggaggccaac 120  
 cgcagaactc gtgtcgcccc ttaccgcgag ccttcgcgaa ggtgatggac gcgccggtgc 180  
 tcgtgacgtg cacgcaccgc tgcgcttgta ggagagagat cagagcaaga agagagcaac 240  
 cagcgtgaaa aaaaacatta gcaaatcaga attgttgtc gatccccttg ttgggggtggt 300  
 tacaacttag tgtttagatc atctttgatg acaattgacg ccgtcgatct gtttaattgt 360  
 gttcctttgg ctggttggtg cttcagtcgc agccaagaat tggcgtgga 409

<210> 5081  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-C4  
 <400> 5081

gagtcgtatt aatagaccac gattgccggc atcgagcccg acgaggcgtc ggaggtgcga 60  
 caaagatgag gaagaagctg ggcacccggt tccccgggc acggatcata aagataatgc 120  
 aagcagatga ggatgttggc aaaattgcac tggctgtgcc tgttttagtt tcgagagccc 180  
 ttgaattggt tctgcaagat ttgatcgacc actcatacaa aattactctt caaagtgggt 240  
 caaagacact gaattccttc cacctaaagc aatgtgtgaa gaggtacagc tcttttgact 300  
 tcctaactga gattgtcaac aagggtccag atctcggtgg cggatgaatct ttgtgaaaat 360

aaaagaggat tacccacaat aaaggaaatt ttcaaattgg

399

<210> 5082

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-C5

<400> 5082

gtaaagggtca ggaattcccg ggtcgacggg tttatctggt aattaatggt tgtgcccaagt 60

cgaacctatg ggataaccta cgatgatagt tgatttgatt ctgctgaaaa acagaaactt 120

tgacgcgacg aatataatgt tgttaaatca caggaacgta attttgcggt gattcttttt 180

tatgctgttc aataaacaata ttttccagga ctctctatgt tggtaggatt tttagatttc 240

cataagtttg cgtaggttac aggttgctac agactgttct gtttttgaca gattctgttt 300

ttcgtgtggt gtttgcttat ttcaatgcat ctatggctag taattcagta tatgaaccat 360

aaataagttg gagtaggttt aacacaaaaa taaataaaca atgagttcat tgc 413

<210> 5083

<211> 206

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-C6

<400> 5083

tagtgagtcg tattagccag atcaaaacgc agagacaacc gtggcacaga tcctcaagta 60

attgtgtgga aagctctatg gtatgcaggc aaaactacgt gtttggtaaa tcagatggaa 120

gtgggatcgc gttaatgctc ttctagagag tgatctgtac aactttgcga ggagttcatg 180

atatgataag agtttacaaa tttcca 206

<210> 5084

<211> 390

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-010-Q1-E1-C7



<400> 5084

gaattcccg gtcgacgggc acggcaggct gtagcagtgg ggatcgctag tagggatgcc 60  
acgttgcaag ggcaggatcc tgggcgtccc ctggcgctgc tgccctgacg accttgctgg 120  
aagttctgtg gcgtcgctgc cctgacgacc tcggggaagg aagcgacact gctcgaggac 180  
ggctctccatg ttggtcggca acaatggcga tgacgttggc gaaccgtgat tgtacggggg 240  
ggatgggggg tgctggaagc ggaacacggt cagtcaaggg aaaagggcct tgtgtgatgg 300  
aggcgtgcgg gctgtgcgtt cccctggtga acgaatctgt atcgacncca tcgtactgaa 360  
cgactcatgt ggtacaaata taatactggg 390

<210> 5085

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-D12

<400> 5085

tcaagaagtc ccgggtcgac ggggacgacat gagctcaagt tcaccggcat gcccaactac 60  
ctcggattca aggtctaaac gcgcattgat atgcattgat gcaacgcctg cccctgtac 120  
atgagatacc gatcgaggta aacgtaattgt gtgtacggaa cgtgtgatga ctgatgcttg 180  
caagatcagc aaaccttcgc tgctccgtta tcaccttctg ttcttttctg gagttctctt 240  
ttccctggta aatgattaag tgtatgttgt gagttgtgac attgattaac tggaaaatgt 300  
atcattcaga tgcccattaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaac 360  
aaaaaaataa aaaaaaacgg acacccaaaa gg 392

<210> 5086

<211> 436

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-010-Q1-E1-D2

<400> 5086

ggtcaagaat acccggtcg acggggctgc gtctacaaca actcatcggc aacaactcca 60  
gtcaacagcg tccgcctcgt cattttgcgt cagcacaact ccgctgtggc tgccggaggg 120

aatagaggag aaggcaggaa ggcaccagaa ggggacgcag tcaccgccct aggtgccgac 180  
ccatcagaga cgcagttgat gatggtgcgg cggagaagac gacgaaagca caagagttca 240  
aattcagtcg tcacgtccg cttcactccc gctacgactg agggggaatg ttagaagtat 300  
aattatgttt aagttagaga taggattggt ttaaaccaca tgtaacttgt cttgtactcc 360  
aagtctctat ccctcatgat gtactctata ttatacccta tganggtcag attcaataaa 420  
ccattattat caaccc 436

<210> 5087  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-D3  
<400> 5087

ggtcaagaat taacgggtcg acgggcccgg acatcgtgat agtcgacccc ttctacatgc 60  
gtgccaagat cttgggcagc gctggggacc ggcaagtgcg gagttcttac ctggaaggtg 120  
tcattctggc aaaccaagat aaggacaact tcctcatgcc ttactttccc gagtaagtcc 180  
tccctcaac cgccccgtaa catatgaatt cttagatttc gatcgttttt attttaacat 240  
tccgtgtttt ctgcagtgc acacattgca cgctcatcct cctaagcccc aaatattcca 300  
tggccacgta ttctgaccgg gaccgtcagt cgaacgtaga ctacacaaat gtcaagaagg 360  
ttcttgatga tgttctcccc ggctacgtca aatatggagg caccttcacc aggcctaata 420

<210> 5088  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-D4  
<400> 5088 /

ggtctagaat acccggtgcg acgggaacac ggagctagct ccactctgaa ttacgaaacc 60  
atgtgacgtg tgctatggcg ctcttgggcc tcacatgaat gtgtcttgca gtgcatatgt 120  
aatgaatgtg actccaaatt tgtacagcaa acggtgctga ctactgcaca atgacgtctg 180  
atcgtctatg tacaccatgt ctgtacaatt tacaccgtga ttaacagcgg tacactctct 240

tttgcacata tccagcagag atcaacgaaa cgaaggccgg cactgttcaa aatttgtacc 300  
cacttcgaaa agtatagatt gattgtatca catgaaactg tgaaatctga tatatccatt 360  
caccactcag tgtgaagtaa agtatgtcc 389

<210> 5089  
<211> 175  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-D6  
<400> 5089

cctatagtga gtcgtattag tcatgagagc gatcggcgtc atgcaggacc ttttcctaac 60  
caagacgtgg taacatcgta cggagtaccg cgcgtaattt ttagtttgtt tcttcttcag 120  
gtggtggatg tccatcatgt ctatgagcac aggcttctgg gttttgacag agtct 175

<210> 5090  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-D7  
<400> 5090

gaattcccgg gccgacctcc gcggaaaagg tgcacgcgat gatggcggat attgacaccg 60  
atggcgacgg cttcatcgac ttcagcgagt tcatctcctt ctgcaacgcc aaccgggggc 120  
tcatgaagga cgtcgccagg gtcttctgaa tcagttcatt tcacctcaac cgtccgatcc 180  
aggagccgat ccatctacgt acggcttcgt aaatcaattt catgcaacta cctactccgg 240  
tcccgatcca gcctcagctt cacctgaggc cggccctaatt tttgtttgat caattttttg 300  
ctactagtag taactagtga tgattactgt tgcaccattt acttatttta taacgtcaca 360  
actttccagc gtttcttttc attctctacc tttttgtcga 400

<210> 5091  
<211> 320  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-D8

<400> 5091

atagtgagtc gtattatagg cagtcaagac ttccagctcc accatctcaa gtcctgttc 60  
ccactcccaa taatggtctg tgctacaagt gtggacaacg aggtcatcgt gccagggact 120  
gcaatcagaa tcagaatcaa cttgcccttg cagcatcggg ccgtggtaac aaacagcccc 180  
gcagcaacaa cgctaagtcc taccgtcgtg ctcatgctaa atacgttgat ctcaaccaag 240  
ctcactacca gccagctact gtgatcggta cactcctcgt aaattcagta ccaggaaccg 300  
gtccgatgtg acacaggtgc 320

<210> 5092

<211> 342

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-E3

<400> 5092

atagtgagtc gtattacgtg atacatcatg atcgtgccat atcaagaaca tatagagaga 60  
gatcgtacag ataactactg gtatataatc tcatccccga tcggtgaatt actctctcct 120  
cgtcatgcat agcgccggca tgatgaacat ggccattcat gtgaacgact ccctcgccgg 180  
caaggttact tcatgggctc acgagatggt ttgtgggtggc tacagaggcg tgcggtaacg 240  
gagctcccga tctatgtgat gtcttggggg tttctgtagc tcttggacgc tttggcatct 300  
gaagcttgtc gtgggcgtca ccgaggctac catgagggtac gg 342

<210> 5093

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-E4

<400> 5093

ccgggtcgac ggggcatctc taaaaatctt aactccagaa atattaccat tctcctcggc 60  
attagctaga agagccgcca gccctctgt acatagcaag aataaatatg gagagagagg 120  
atctccctgc ctcaaacctc tagtaggttt aaaactctca gtctcttcag tattaaagcg 180  
aaccgggtac tccaccgaag atacacattg cataattaaa tttaccaggt tctcttgga 240

tcccaatttc aacataatat ccttcagaaa agaccactct acccggtcgt acgctttgtg 300  
 catatccaat ttgatggcac acataccctc tttaccattc cttttttctt tattgtatgg 360  
 aaacactcgt acgccactaa aatggttatct gt 392

<210> 5094  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-E5  
 <400> 5094

gtaaagggtca ggaattcccg gggtcgacggg ctatgcatat gcatcatgaa aagaatgctt 60  
 tatgtgatgg ttatatTTTT gaattccttc atgatgttac tgaaaattat tatgagagat 120  
 gaacatatgc ttctacatat tgcaatatta tcaagtttcc tctctatgta ttgaaaatct 180  
 tgaagttttg cttattttac ctctctatgc tagttgatcc ttgctctcat aaattgtttg 240  
 ttcacaaaat ccctatgcat aggaagtggg ttagacttaa atgtgctagc catatgctta 300  
 atgatgctcc tgttatgttt caattcttat cttttatgtg agcatcatcg aaatcatcat 360  
 gactagctaa aaaggcatta aagaaaagct cttgttggga gacaacccaa tatttaccct 420  
 tactttttta aggttt 436

<210> 5095  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-E6  
 <400> 5095

ggtacaggtc aggaattccc gggtcgacgg ggggtataaa ccatagagaa gttggaatac 60  
 agtagatatt acaacaatat gaatttagaa tgagttcaca acagtaccta agtggtgatt 120  
 tattttcttg tactaacgga gcttacgagt tttctgttaa gttttgtgtt gtgaagtttt 180  
 caagtttggg taaagattcg atggactatg gagtaaggag tgccaagagc ctaagcttgg 240  
 ggatgccccaa ggcaccccaa ggtaatatcc aaggataacc aagcgtctaa gcttggggat 300  
 gccccggatg gcatccctc tttcgtcttc gttcatcggt aactttactt ggagctatat 360

ttttattcac cacatgatat gtgttttgct tggagcgtca ttttaattta atttgttt 418

<210> 5096

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-E8

<400> 5096

aggtaccggt caggaattcc cgggctgacg ggggtgttaa attgcaacac atacgaagtt 60

gcgacagcat gtgctttggc tatcgaggcg gacaagctta tctgtgttgt cgatggccaa 120

atatatgatg agcatggccg agtcaatcgt ttcattgtcta tcgaggaagc agatatgctc 180

atcagaacac gcgctaagca gaggtaaaact gctgcaaatt atgtaaagggt tgtaggggag 240

gaggacatta gttatgccca caattttcct atcaaagagg agaaagagca agtatgagtt 300

ggaagagatt tcattcagtga ttactctgca tcctttcgga atggtgtggg tttcaataat 360

ggaaatggtc tgtctgggtga gcaagggttt gctattggcg gggc 404

<210> 5097

<211> 379

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-010-Q1-E1-E9

<400> 5097

gtcaagaatt cccgggtcga cgggaggtgg cacagacatg agtaagcttg agagagtgag 60

aggaattgtg cggtgccact gtgctgtgag gataaggatg tatattaggt ggaaaagaaa 120

acaccttcga attgtagcaa gctcgagctt agccccatctt cttgacgtac ccataactgt 180

aggtgcttaa agagttttca gcgtgggtgg acgcctcagg ttgtctacaa aaactaatta 240

ggagtactca gtgttttttc gaataaaaac atctgtgtta ttctcacttt tattttaata 300

tattttatat gttttatataa aananaaaaa aaaagggtgag agtttaaaaa aaggaaaaag 360

aaagatagga aaaacaaag 379

<210> 5098

<211> 317  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-F11  
  
 <400> 5098

cctatagtga gtcgtattat aacgatgtgt gggatcaatga actcaacatc atggatgttc 60  
 cttactctgc attccttaat cttcattcta catgtataat agcagacaca acagtataat 120  
 taggacatat atatactgca ggcaatatga atgacatggg gtagatatta atagatcact 180  
 tatagaacgt agcaactgat gatataattta tcgagctcgc gcagattgta aagctgcaac 240  
 aattcattca gttcaatttg tacatcgtaa ttgtttgaag tgacgctcat gtctaagttc 300  
 cgcataaata tactctt 317

<210> 5099  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-F2  
  
 <400> 5099

ggtcaggaat acccggtcg accgggaagc ggatcggtcga tgccgagacg ccgcccgggc 60  
 gggagtcggc acgcagcaac gaggcggtcg aggaggcgcg gatcaagctg ctggagctgc 120  
 ggcaggtgaa caaggtgaag gcgctcgtcg gcgccttcga gaccgtcatg gacgacaacc 180  
 aaagccccac cgccgcccgc aagccgcggc tcaacctcgg cgctgaact acgagtacat 240  
 tcgatgagca tgaagctcga tcgctgcgc ctctctcttt atccccgcta ctctttaatc 300  
 acccatcaac ccaatttgtc gtcgtcgac acttatctat aattacggtg tcgcttatat 360  
 tctgcaagga ngaagatgat ggaggggtta tcatcatgat 400

<210> 5100  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-F3  
  
 <400> 5100

ggtcaggaat taccgggtcg acgggaggca cccaagga atattcaagg atgtcaaaaa 60  
 gcctaagctt ggggatgcc cggaaggca tccctcttt cgtctttgtc tatcagtaac 120  
 tttacttgag gctatatttt tattcaccac atgatatgta ttttgcttgg agcatcttgt 180  
 atgatttgag tcttcccttt ttagttttcc acaatcatcc ttgctgtaca caccttttga 240  
 gagagacacg catgaatcgt gatttattag aatgctctat gtgcttcaact tatatctttt 300  
 gagctaggca aattttgctc tagtgcttca cttatatctt ttagagcat ggcggtgatt 360  
 tcattttata gaaattgatg aactctcgta cttcacttat at 402

<210> 5101  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-F4  
 <400> 5101

ggtcaggaat acccggtcg acctccgagg acgaggtgca ggcgatgatg ggcgagatcg 60  
 acaccgacgg tgacggcttc atcgacttca gcgagtcat ctccttctgc aacgccaaacc 120  
 cggggctcat gaaggacgac gccaaagtct tctgaatcag ttcatttcac ctcagccgac 180  
 cgttccagga gccgatccat ctacgtacgg cttcgtatat caatttcacg caactaccta 240  
 ctccggtecc gatccagcct cagcttcacc tgaggccggc cctaaatttg tttgatcaat 300  
 tcttttgcta ctagtagtaa ctagtgatga tcaactgtgc atcatttatt tattttattt 360  
 atatatcatc acaagtttcc tacaaaaaaa aaaaaggana aaaaaaaaaa aaaacgggag 420

<210> 5102  
 <211> 263  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-F5  
 <400> 5102

cctatagtga gtcgtattac ggggagcatt aaagattgat ggcagcgtct acagtggact 60  
 tgttgtatga tatacagtgc aatatttctt aatgtcaatt catcgagtta acctttccat 120



tttgagtcgc tgagactgag gagtgatgtg cagtttgctc tgtagacgc gtctgtcact 180  
 ttcacttttc atatgctttg ttgtgtggat cgcagagtg ctctttcctc ctgagtctcg 240  
 gcaagaatat tagcaagcca tgt 263

<210> 5103  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-F6  
 <400> 5103

gtaaaggcca ggaattcccg gctcgacggg ctctctcaaa acagccacca tacctaccta 60  
 ttatggcatt tccatagcca ttccgagata tattgccatg caacttccat catcatcata 120  
 tacatgactt gagaattcat tgtcttattg atttgcatga tcataagata gctagcatga 180  
 tgttttcatg gcttgtccgt tttgtcattg ctatgctaaa tcattgcata tcccgggtaca 240  
 ccaccggaag cattcatata gagtcatatc tttgttctag tatcgagttg taatatcgag 300  
 ttgtaagtaa ataaaagtgt gacgatcatc attatagagc attgccccat ggaaaaatta 360  
 aaaaatcaac aaaaagtttc cat 383

<210> 5104  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-F7  
 <400> 5104

aattcccggg tcgacgggcc acaatacgac gttctgctgc gtcaagcagc cgcctggcgg 60  
 tcagaagggt gcctactacg ccatccatca catgcgggcg atcgtagcgg accatcatca 120  
 acttctgcta ccgagtaaac tcaaagattg ggccgcgagc gtgtcggcaa tccaggacgc 180  
 ggacctccga caagaattct ttgcgcatcca gtcggagttt gcggaaatca tccatcaaga 240  
 tgtccttctg acctcggggc agttctacct caaaaatcaa ccgccaaca gtgacatcga 300  
 cacaatgcta caaatgcagg ctgacaacga ccgttatctc atgactccca cgatagacgg 360  
 cggcttcacg catgctccgg tcccttgagt cgagtgcgaaa 400

<210> 5105  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-F8  
  
 <400> 5105

attcccggct cgacggggta acgaaccacc acatgtccat taacgaagtg tgggtcagtg 60  
 aactcatcat catggtcgtt ccttactctg cattcgtaa gcatcactcc acatgtataa 120  
 cagcagatac actcttcatg gtaagacata gagttactgc aggcattcag atcgagatgg 180  
 ggtagatctt aagaaagcac ttacagaatg taacacctga cgggagactt agcgaactcg 240  
 cacatattaa tgagctggta cacttcactc agttcaattt gtgcatattc atgcctgac 300  
 tgatgctcat gtccaacttc cacataaata cattctttgg cgtcattagc tttta 355

<210> 5106  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-G10  
  
 <400> 5106

tcaagaattc ccgggtcgac gggcactata atggagaagt ttgtgcttat taaggattat 60  
 attgatgggt tgccttttat cattgcacat gataattttg atagatataa tatgcatgtg 120  
 cttgctgctc ctacttgcaa ttattatgag agaggaacta catctccgcc tctttatggt 180  
 tccaacacga taaaattgca agaactctgt tatactatgc attggccttt actatgtgtg 240  
 catgaattgt tcttttatga catgccgatg cataggaata gagttggact tcgttggtgc 300  
 atgatatatg tcactttgtg ctactacta aattacaaat cattgttaat taaaattggc 360  
 tttgatatac cttgggatct cgggtggattc gttacgtgag cactaaatgc ctagct 416

<210> 5107  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-G11

<400> 5107

ttccccgggtc gacgggtaac atcaaacacc agaacgaggc cggcgtgggc atgaccgact 60  
acggcctcga caggggcggc ggccccgggc tctgagtga tgaggctttg tgttgctttg 120  
cttggttgga actgggctgg ggggttgctg tagcttggtg gtgcctgaag ctttatgctt 180  
ccaggatgtg atgggtccgag cgatgcggaa acgggtactgt aactgcatca tatgtttatg 240  
gtgtcgatcg ccttggggtga tatcatcttc ggggtgtact ctagaaacaa tgggtgcttga 300  
gctgtcatgg taaaagtaaa acattgcggt gtaatgctgc atttcacatg ctgggttagt 360  
tatgttactt tcttggtcgt gtacgccgtg gtgctagtga ggtggctcct atgttggcta 420  
agat 424

<210> 5108

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-G3

<400> 5108

ggtcaggaat acccgggtcg acgggcggct tcaactacta tgggtgtggtg aaggctgact 60  
acctgatgat caaaggatgc tgtgtcggcc ccaagaagcg cgtggtgacc ctccgccagt 120  
ccctgctgaa gcagacctct cgtctggccc tggaggagat caagctcaag tttgtcgaca 180  
cctcttccaa gttcggccac ggtcgcttcc agaccacaga cgagaagcag aggttctacg 240  
gcaagctcaa ggcttgagct gccgccgcg atcatcagtt atatcatttt gtcaaaacga 300  
acatgtgata cttgattact tcccctgcct aagttttgta ctagttgatg ttttcagaat 360  
ctggctcatc ag 372

<210> 5109

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-G5

<400> 5109

aattccccggg tcgacgggat aagtaagctt acatccagga tgatcatgac cataacaagt 60

gcactacatt gatgttagtg thtagagtag gcaaatttgc atgtctcttg ctagttgatt 120  
 ttactcttct ccgaatcata acttgtgatg tgtgcaagta cagttaacaa agaacagcaa 180  
 cataaaagtg tgcaatagtt tggatccttc tgtgttgaat gatgaaatca tactttagat 240  
 ccttctgtgt tgaaagatga aatcttactt taaaaaaggt aaacaccttaa aatacagtta 300  
 aagaaaaatg aaaagcccaa caaaaggtgc acaaatttca attcaagggg catctgttaa 360  
 aaaaatccgt aactgggaaa acc 383

<210> 5110  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G7  
 <400> 5110

ggtacaggtc aggaattccc gggcgcacgg ggcttcacag gcttgggaata taccggttgc 60  
 gttcatcagt gttattttac ttccaattgt ggggaatgct gcagaacatg ctagtgcggt 120  
 catgttcgca atgaaagata aattagatct ttccctggga gttgcaatag ggtcatcaac 180  
 acaaatgtcc atgtttggga taccattttg thtagtgata ggggtggatga tgggccagcc 240  
 catggacttg aactttcatc tcttcgagac cgcaagcctc ttaatgacgg tactggttgt 300  
 cgcatttttg ttgcaggatg ggacttcaaa ttgcttaaaa gggttgatgc tgtttctatg 360  
 ctatctgata gtcgctgcta gtttctatgt acattccga 399

<210> 5111  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G8  
 <400> 5111

cccgggtcga cggggaacgt gctgaccatc ttcgaggagg aaggcgggcg gccggacgcc 60  
 atcatgatcc tgacggtgaa gcgcgacaac atctgcagct tcatctcgga gaccaacccc 120  
 gggcacgtac ggtcgtggga gaccaaggac agccagctga cgatggtggc ggacgacctg 180  
 aagccgcggg cggtgctgac gtgcccggag aagaagatga tccagcaggt ggtgttcgcc 240

agctacggga acccgctggg gatctgcggc aactacacgt ttggcaactg ccacacgccc 300  
aaggccaagg agattgtgga caatgcgtgc gtggggaaga ggagctgcgt gctggccgtg 360  
tcgcacgacg tg 372

<210> 5112  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-G9  
<400> 5112

gtccagaatt cccgggtcga cggggacggg gaggacgagg tgccggcgat gggcggagac 60  
aagctgatcc tgcgggggct gcagttccac ggcttccacg gcgtgaagca ggaggagaag 120  
aagctgggccc agaagtctgt ggtcgacgtg gacgcctgga tggacctcgc cgccgccggg 180  
gactccgacg acatcgccca caccgtcagc tacaccgaca tctacaggat agccaagggc 240  
gtggtggaag gcccgctcgc gaacctcctg gagtcggtgg cgcagtcgat cgccggcacc 300  
acgctgctcg agtttcccca gatctccgcc gtccgggtga aggtcgggaa gccccacgtc 360  
gcggtgcatg gcgtcgtcga ctacctcggg gtggagatac tgaggaggcg cagagaggca 420  
tgagcacaag 430

<210> 5113  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-H1  
<400> 5113

ggtctagaat acccgggccg acctccgcgg aaaaggtgca gcgcatgatg ggggagatcg 60  
acaccgacgg tgacggcttc atcgacttca gcgagttcat ctcttctgc aacgccaacc 120  
ccgggctcat gaaggacgtc gccaaagtct tctgaatcag ttcatttcac ctacgccgtc 180  
cgatccagga gccgatccat ctacgtacgg ctctgtatat caatttcatg caactaccta 240  
ctccgggtccc gatccagcct cagcttcacc tgaggccggc cct'aattttg tttgatcatt 300  
tttttgctac cagtagtaac tagtgatgat cactgttcca tcatttattt attttatatc 360

atcacaagtt tcttttcttt ctctaccttt ttgtcga

397

<210> 5114

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-H11

<400> 5114

gtccagaatt ccgggtcgac atctactcct catccagctc catccagtcg gtgcagccac 60

gtcaggctta ccgtgactcc ggtaataga ccagataaga cgggactccg gttagtagac 120

cagataagac gggcagcaga agctcagact atatgatcat ggtggtaaac ggtggtaggg 180

ttgcagatca gcaacgcaga ctgcaacccg caagctgcag tggcagcgtc cgaaagagat 240

gcgcggaatg tacataagta gtgcgagcgc gtggaacttt tgtctgaaga gatgattttt 300

tcgtatgtaa ttgcagaatt tgactctctt ttttcgttta tctctgctta gccagcagtt 360

gatccgtgat ctataacggt ggcagtatat ttatga 396

<210> 5115

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-H4

<400> 5115

cccgggtcga cgggatctcc tacagtcagg gtatcaaagt tatttactca aatggccagc 60

tgggcatggt aagacaacag ttatgtaatc tctgttgcca actggtcagg tatgtgctgg 120

tttatgcctt gatgcagtat atcactttcc cgttcgtggt cagggtacga tgaaattagg 180

cagaatggca aaatcagcag catctactgt gaacacaagg cgaagagaaa agggattgct 240

tcctcgtccg gtaactcaat tgatttgttt tgcttcctgt cttttttttc tctatacatg 300

caaattatct gttctgaaac ttttcataa gaagaggtag actgtgcaac ttggttacga 360

tgatcatagaa gtaatgtttg 380

<210> 5116

<211> 409

<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-010-Q1-E1-H5

<400>      5116

ggtacaggtc aggaattccc gggtcgacgg ggacgctgat ctcaatctgc ccgtccctcc    60

acgggcctgc gccgcctccc tactccccg ccgcatcgcc ggcggcctca gctttgcacg    120

ctccgatggt gccgagattg gtcacttget agtgctggcg gctcaacctg cggaatcgcg    180

gcaccgccat ggagactccg ctgacgggtc agattgtcga gttcaacacc aagggtgtgcc    240

tttctgggct ccatttcccc ccggttcatt ttgggttttc gtgcagtgtc gtgaggctgt    300

tgctctacat gctggtgttg gtggacctgc tttgcagggt atgcaggagg agctgaagaa    360

gctggggctc aaggtaacc accatgaggc caacatcacg ttcctcaag                    409

<210>      5117

<211>      406

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-010-Q1-E1-H7

<400>      5117

ggtataggtc aggaattccc gggtcgacgg gtgttctacg tggccagaa cagctggaga    60

ggtttttgca agagaacagg ggatacactt actcaggact tgaacgcgag ttatcattgg    120

ctgagttgaa cggctgctta gttgtggttc ataataatca tgacatatct atggacttgt    180

ggtttttgac agattttgag aaaggctctt gggtaagaa atacagcttg ccttcacatg    240

ttgctaggct tttttggtat ctttttctca tgttgatga tgggagaatt ttcttcagt    300

ggatggattg tctggaagg atattaagt gtggagagca aggagaggga tttctgcaat    360

gttatgatcc aaggaatggc acatgtactg atgaagtaaa actgag                    406

<210>      5118

<211>      433

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-010-Q1-E1-H9

<400>      5118

tccagaattc ccgggtcgac gggccagggg aggatgatgc ttatggggac gaccgcgctg 60  
 attacaggaa atctgaaccg actacgtaca tcaatgctcc cttggtaggg gttcttgctt 120  
 acttcgttgg caacccaaac cctggccgta tcagacactg agcataagca ctttgccatg 180  
 tagatagaga agagtgcacg aagctataaa taggtacaca ggaagcaa at aggtttgtgt 240  
 ttggatggca ctacatgttc ataggagtgg attgcagagc gtgtgttcta ccagtaatga 300  
 gagattagct ttaatgattt ctcttttgtt ttgggtttgc actgaatttt gtgtggatgt 360  
 gtgcaaagtg caatttgact gcactgggtg agtcacgagt gaagaacact tgcatttttg 420  
 cagaaatatc tat 433

<210> 5119  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-011-Q1-E1-A1  
 <400> 5119

taccggtcaa gnattcccg ggcgactact cattgatctt cgettatatc ttttggagta 60  
 gtttgtcatt tgctctagtg cttaagcacg gcggtggttt tattttgaag aaatagatga 120  
 actctcatgc ttcacttata ttatttttga gagtcttaaa caacatggta atttgctttg 180  
 gttataaatt tagtccta atgaactttc atataaagt cattgaatac tatgagaagt 240  
 ttgattcttt atgattgttt tgagatatga agatgggtgat attagagtca tgctagtgg 300  
 gtagttgtga atttgagaga tacttgtgtt aaagtttgtg attccggtag catgcacgta 360  
 tggatgaatc ttatgtgatg aagtcggagc atgattta 398

<210> 5120  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-A10  
 <400> 5120

ggtaccagtc tagaattccc gggtcgacgg gtgggaaaga aaacaactga ggacagagaa 60  
 acaacttcgt tgagagcgaa ctgaggattg aacttggcaa agatgaagag gctcgagtca 120



agttgacgag aaatgcaccg gatgaaaagg gctgaggaac aacgatcgga aaaccaactg 180  
 cgtgaccta aagaaaattht ttgaagggga agagaagtaa ttcaaaacac ctacgtcaag 240  
 attcctcacc agagcgacga aggggctgag gagtaaaaag aattcctact ctccgatata 300  
 ctagactcca aaaatagtht tcttctagac tcaacaacgg ccaaactaca cgatcaatca 360  
 agggggctcc taaggctcgt cgaggctctg ttaccaactt gtcatgccca atatcca 417

<210> 5121  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-A11  
 <400> 5121

attcccgggt cgactagggg attaagattc tctgacactc ttagttatga tggcacaaat 60  
 tttgatgttt gggtaattcc catgcttaat ccctttaggg tcatggaccc aaatttagag 120  
 cgaattgtag atatgggttt ttctcctcca aatgatcccc aaagattatc tctagaggat 180  
 gataaaaact cttatctcaa tgctcaactt ctaatgtgct ttttgatgct ttgagcaatg 240  
 tagttatatt tcaactcatg tcgttctggg atgctcatga gttgtggaca aagcttcaag 300  
 ataaatatgg tgtgttcaag atttgtgggg atgattgttc tccctccacc tccggccgtg 360  
 ttgccttctc aactt 375

<210> 5122  
 <211> 250  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-011-Q1-E1-A12  
 <400> 5122

agtgagtcgt attaaaanct ataatggcac aaattttgct gtttgggtaa ttctcaggct 60  
 taatcccatg ggggtcacgg caccaaattt acagcgactt gtagataggg gttatttcac 120  
 atccatatga tccccaaaga ctatctcgag aggatgataa attctcgtaa ctcaatgcac 180  
 aacgtccaac gcgctttctg ttgctttgca caccgtagtt agacctcaac tcatgtgaga 240

ctgggatgct

250

<210> 5123  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-011-Q1-E1-A2  
  
<400> 5123

tcacgggtcaa gaattcncgg gtcgacgggc gctctatcac acataagcct cattatatct 60  
tcctcaaaac atccaccata cctacctatc atggcatttc catagccatt ccgagatata 120  
ttgccatgca acttccatca tcatcatata catgacttga gcattttattg tcatattgct 180  
ttgcatgata gtaagatagc tagcatgatg ttttcatggc ttgtccgttt ttttgatgtc 240  
attgctacgc tagatcattg cacatcccgg tacaccgccg gaggcattca tatagagtca 300  
tatctttgtt ctagtatcga gttgtaatat tgagttgtaa gtannatana gtgtgatgat 360  
catcattata gagcattgcc cctaaaaaaa aaaaanaana aaaaaaaaaa aaagcggccg 420  
ct 422

<210> 5124  
<211> 190  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-A4  
  
<400> 5124

gggccgagaa ttcccgggtc gacggggggc aaaggcgccg tgcagaaggg ttccaagggc 60  
ccaaagattg gcggtggcgg cggaagcgt tgaaagttga ttacgccata gacatagagt 120  
tgtgctgcct agccttggtt cctaacctac tagcatagac ctttgtcaag ttattacccc 180  
gccctcctga 190

<210> 5125  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-B10

<400> 5125

gtaccagtcc agaattcccg ggtcgacggg gtcgtgggga acgtgtacag cctgaggagc 60  
aagtctgagt gagtgatgga tggatcatca ggatgagcta tattttagg gcttattata 120  
cccaggctgt attaccactt gccagaatac aatagttagc aggtacacca gttccagctg 180  
agctgctgag caaagctcat catactatac attttcttca tctacagggt tgtttcatgg 240  
gtgatggctg acatgttggt ggtgggcatt cttgtacttt tggaccagat tctttgatgt 300  
atTTTTtgat cttctgctta ttcttagata tatatacatg tgtatcctgg gtctactttc 360  
tgatcgaggc agtgaatcaa ccttggtttt ttctactgag gttgtgtgcc tatggtatga 420  
tgaaagctgc attcagaaaa t 441

<210> 5126

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-B12

<400> 5126

aattcccggg tcgacgggga ctctcaatgt tactatgtgt cgtttcctaa tgatcagtag 60  
ggatgcctat tcgggggttcg attcagggtc tagtcgcttg ttgggggtct tttccatttt 120  
ggcaccgtag tcgggccatg agtgattgta tgatgaatgt tatttatgta ctttgatgtg 180  
acgtggcgag tgtaagccaa ctatgctatt attccccctt atattatata tgtacttggg 240  
ttgtgttatg attcccgact tgcgacattg ctttcaatgc gcctatgtct ctaagtcgtg 300  
cctcaacacg tgggagacat agccgcatcg agggcggttac aaccggtgac cccgaaactt 360  
tcccgttggc caaaacaaca ctctctatat attattcttc acctccggac ca 412

<210> 5127

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-B7

<400> 5127

aattcccggg tcgacggggg cagccagcac aaccgacagt tatgctgcgc cgaagacttc 60

ccagccagag acaccagcgg ccgaaacaac tgatgcctat gccgcgccga gaccgaggct 120  
 gtggaacaag aagattggcc atctccccct gccgcactaa gtccaacagt ttaccagtt 180  
 tctgagcgat caaccaaaaa aacttccccct ctcatctcac ttgaggagct actatgactc 240  
 tatgaccgga ttttataccc caattttcat tgtgtaaccg cttatccaca atgtaccact 300  
 tatgcaactc cgtttgagct gttattgtat tgctatgtaa agagaactca tgtacctgtc 360  
 atgtaagaaa aaagaaaaca ccaaaaaaca aaaaaagcg gccg 404

<210> 5128  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-B8  
 <400> 5128

gtaccggtct ggaattcccc ggccgacggg caaacagtgg cttaatgaaa ttgacaggta 60  
 tgctagttaa aatgtgaaca agcttttggg ggggaacaag tgcgatctag ctgagagcag 120  
 agtggtttct tacgaggtcg gcaaggccct tgccgatgag attgggatac cattcctgga 180  
 aaccagtgcc aaggatgcaa caaatgtgga gaaggcattt atgaccatgg ctgcagagat 240  
 aaagaacagg atggcaagcc aaccggctgg aaatgccagc aagcctgcca ccgtgcaaatt 300  
 gcgggggtcag cctgttgccc agcaaaacgg atgctgctcg tcttgatcaa cactcaagat 360  
 cacagtagtg ttcttgcaaa actcagttgg ttgttcttcc cctgtaaatt aagtgtacta 420  
 ctatcatgcc gtctgttgga agaagtgtca tgc 453

<210> 5129  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-B9  
 <400> 5129

attcccgggt cgacggggag cgggtgggtga tcgagcagca ggcgagttc ggcaacaagt 60  
 gggcgaggat cgccacctac ctgccgggca ggacgggaaa cgacgtcaag aacttctgga 120  
 gcacccgcca gaagcggtc gccaggctgc tgcgcgggcc tctccgcgcc cggcccagca 180

agaccaggag cagcaacacc aaagcgcccg catcctctct cgagtccgcc atgggttctt 240  
gccatgatca tgttccgtcc gtgggcaact cctccggcgg ccaaagcttc ccggtgcac 300  
cgcccatgga gcaccaggac accgcgcgaa tctcgcatga tcagatgtgc tctggattcc 360  
tcagtttcga gccattgccg ctgcaggcag cagcaccg 398

<210> 5130  
<211> 228  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-011-Q1-E1-C10  
<400> 5130

aattccccggg tcgacgggat tcagcaacac atatacacac tgtatgggtct ctcgggatga 60  
tatgtcgcca ggtctccaca aagcaaaata ttgtaacatg taccctcacg tatacgaggg 120  
catttattca aacagctact cctatgtaag cacagtataa cttggggtct gctcaagtgt 180  
tgtgatatac tattcataaa taaataaata tactatacag ttgttcag 228

<210> 5131  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-011-Q1-E1-C11  
<400> 5131

attccccggg cgacggggcca actgattttc tcctcttgca gttgggttcg gtcgatgaag 60  
actccaccgg ctgctctgg caggacaccc tcacaaatgg caccttgtag atgctcgatc 120  
cttcaatctc tgggtggatgc tccatctggg attgatactc ccatcaccgc tccctcacga 180  
tcggattcgg tgaatgtgtt tgctccatgg ccagaggag cagctctatg tactccggcg 240  
cgaectcctc caggtgtatc gccgcctttt cgctctgttg cagatatttc gccatggatg 300  
tcgccgtcgc cgctagttgg tccttgttgt caaaccaaga ctgtatctcc aacatcctag 360  
ctagcttcac agggtcgcgc tccgcgatcc tcatgtatcc gttg 404

<210> 5132  
<211> 285

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-C12  
 <400> 5132  
 tgctacaccc tatagtgagt cgtattagtt gggttcggtc gatgaatact ccaccggttc 60  
 gctctggcat gacaccctca cacatggcac cttgttacat gctcgatact tcaatctctg 120  
 gtgggtgctc aatctgggac tgatactcct atcatcgctc tcgtcacgat aggattcgtg 180  
 atgaatgtgt tcgctccatg tttccagtgg atcagtctct atgtactccg gcgttactcc 240  
 ctcgatctgt attgacgcct ctttcaactct gtttgacat atttc 285

<210> 5133  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-C2  
 <400> 5133  
 ggtccagaat atccgggtcg acacctacga ctcctaaggc cacatatgtg acaccacaag 60  
 gtaggacacg tagcaagaca ggtacaaatg gatcagatgt caagggtgtt cgacgaactt 120  
 gtcgttctac aagtgttaact ctacggcatc atatctgctg tggtaagggtg gttaaaagat 180  
 tactagcatc acactaattc agatattatg aacaggcctg tatgtatgga ttgtgatcga 240  
 ctacacctta aggttgtatc aatatgtgat gactgagact tccctgataa cgtgtgtacg 300  
 ttctttatgg aaacatctgc aatgtctagc catgaacgtt gagactgcct tcaactgaggt 360  
 tctgactcag atctatcgtg tagtcagcac gaaagcc 397

<210> 5134  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-C3  
 <400> 5134  
 gggtcgaccg gcaatggaag atgtacgtgt gatatgtcaa gtagtggaca gataagccaa 60  
 ccaactggatg tggttttgag ggatttttgc actgggggtt gtaagggtgct atgccgcgct 120

gggtttggga tttgaaataa aacgaacgga gatgtgccac gctcttaatc acaaaattaa 180  
ctattactga tataacaaag ataactcata atgaaaaaaa cctacactaa aaagcaagca 240  
tcaccacaaa gtataacctt gtcataaact ggaaatgaaa ataataacca ttagggggcca 300  
cactaagtgc tttcattcac cataccatca aaagtaaata actcacctg aatcaggccc 360  
tttaagtcgc attcaagggc tgcattttaa aaa 393

<210> 5135  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-C6

<400> 5135

aggtaccggt caagaattcc cgggtcgacg ggttgtctcc tcgagtgttg gttggtcaca 60  
gctttggtgg aaaagggtttt tcctgttccct ttttcatctt cttatctgac atgctatgca 120  
cttcataac tgtccagcta cctaattgtg cttgcagtgg ctttgagtat ggtagatcaa 180  
gctgcaaaac cacttgcccc tcctgtcagg gtaagcttaa ctaccttttc cgtgttatat 240  
gagtgtggca ataatggaat gccaaactatt attaattata ttttgagcta aatttcttat 300  
gtgtattctg ttccttgaag gtatgggttc ttgatgctac tcctggcaaa gttcgttctg 360  
ggctagatgg cgaagatcat cccgttgaac ttattgattt cctcagaaga atgcctgtgc 420  
aggttggcct tttagaacta tctatgc 447

<210> 5136  
<211> 415  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-C8

<400> 5136

ggtaccagtc tagaattccc gggccgaccg gaaagctgaa tgcgtgagga atcatggata 60  
cacagtcgct catccttggg gatgccaaag gcatccatt cacagattgt acggatgtca 120  
caatcgtcga atgctttggg atgccccggt tggaacccta atcgttcttc atcaacatcc 180  
tatctgtcac tatcggttga tcctaagtta tgcttctca gatgatgttt gctattcgta 240

gctctcattt tatggtgctt tgcattgctgt ttgtatagga taccaaaact ctgaaattat 300  
 taaatgttag cgaatcttca catatatgca tagctatgcg ataactcatt gatcttcacc 360  
 tatctccttc tgagtactct gtcatttgcg cgattgcccc atttagatct ttac 415

<210> 5137  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-C9  
 <400> 5137

aattccccggg tcgacgggta gaataggcga tgtgcatcac ggatatcttg tggagctaag 60  
 taggtgtgct cgatgtgctt cacgtatatc gtttgagcaa tatacatttt ctcgaggtgc 120  
 ttcacctaga tccttagaga gttatagtta tgctcgacgt gcttcaatta catcctctag 180  
 agcatggtgg tggatccttt tgcagaaaac agtgatcgct caggcttcac ttaaattatt 240  
 tagagagact cataggatca tgggtagatg cttaataata atatgcttgg tattcaagat 300  
 ttgtgaaact ttcttttgag tgtgttgaat actaggagaa acgattggga tcatgataaa 360  
 tgttttgata tatggaag 378

<210> 5138  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-D10  
 <400> 5138

gggtcgacgg gaacgcaata ttaccacaaa ttctccggtt gtggtaacat accgcacata 60  
 ttgcaataac ttagtttcgt tgcaataaat actaactttg ttgcaatata ggccctcatat 120  
 tgcaacaagc tgtatcggca tagcaatatg gtaccagtat tgcgacaaac aaattccggtt 180  
 gtgcgagggc cgtcatttcg ttgtaataga gactaggtat ttcaacagaa taactattcg 240  
 tggcaatatt cagaaagata ttgcaacatc gatgtgatgt tgcattagtt acaaattattg 300  
 ttgcaaaaaa gtggctaact atagcaacaa aatgcatagg cgttgcaata tgatagcgat 360  
 attgcaacca acaaattcca ttgcgcgaag catccggttt g 401



<210> 5139  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-D5  
  
 <400> 5139

ggtaccagtc cagaattccc gggccgacgg ggaggttgag aagctgattg gcaggatagt 60  
 gaagtggctg aagccccgtg ggcataatatt catcagggag tcttgcttcc accagtctgg 120  
 ggattccaag aggaaagtga acccgacgca ctaccgggag ccaagggtttt acaccaaggt 180  
 gttaaaggaa tgccactcct atgaccaaga tgggaattcc tttgagcttt ctctggtaac 240  
 ttccaagtgc attggagctt atgtgaagag caagaagaac cagaaccaga tatgttggct 300  
 atgggagaag gtcaagtgc cagaagacaa aggctttcag agattcctgg acaatgtgca 360  
 gtacaaatcc actggaatcc tgcgttatga gcgcgtgttt ggggaggggt atgtcagcac 420  
 cggg 424

<210> 5140  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-011-Q1-E1-D6  
  
 <400> 5140

ggtaccagtc atgaattccc gggccgacgg ggagtctcaa gtcgatacct atgtgctgtg 60  
 ttttccacgg aaattttcaa aactcaaagt agtacatttt tgtttgcaa gttttagaaa 120  
 gtgggtagac cgaaatcagg gatcactcta ctacttctc tgttcacttt tataaggcct 180  
 tgtagacatt tcagacagca tgcaaagcag gtcagttggt tgaaacgaat tataaaaagt 240  
 aacgtaggga gcggtgactg tacatctctc agtgggttga aacatggaag agcggtagcg 300  
 gcaagcttta accataagta gccacactg aggcttgatt tcccagcaca aaagttgctc 360  
 gcaacagaga actgggcggg atccanagac ggagcacatg atgaagagtg aacaaaactg 420  
 gcagcggaga gtgggaggag aggagaggag agg 453

<210> 5141  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-E10  
  
 <400> 5141

aattcccgcc cgcacggggc tcttcaagca cttgaacccg cttggatcac ggcgagacag 60  
 atggaagcag gacgaagagc aataacacga tatgcacgtc gtggtggaaa aatatgggta 120  
 cgtatatttc ccgacaaacc ggttacacta agaccactg aaacacgtat gggctcggga 180  
 aaggggtccc ccgaatattg ggtatccgtt gttaaacctg gtcgtatact ttatgaaatg 240  
 gggggagtat ctgaaactgt agctagagca gctatctcca tagctgccag taaaatgccc 300  
 atacgaagtc aattttattcg attagagata tagaacccta aaaggggtat ggaagataaa 360  
 aaaaaaatg cccggttttt ctttctggaa agacaatatt tctttcatcc ttt 413

<210> 5142  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-011-Q1-E1-E5  
  
 <400> 5142

taccagtcta gaattcccgcc gtcgacggga tgatcagcga ggccgatgtc gatggcgacg 60  
 gccagatcaa ctacgaggag ttcgttaagg tcatgatggc caagtgatcc cgccgatgtc 120  
 ccggtggacg gtggtattat tattttaccg gggaggagga aattgtgcta tgcattattag 180  
 tagtaaggaa tgcggctctc gtttccttgt ctttgcccca aaccagaaga agcgtactag 240  
 tagacgtagt tgctgaagag cattcatgga atcctcctcc cctgctgcta ccttgtctct 300  
 ctcccggtgtg tcattgaaac atctttcttt ctgtgtggca aaaaaaaaaa anaaaaaaaaa 360  
 aaaaaaaaaa cggccgctct 380

<210> 5143  
 <211> 302  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-E6

<400> 5143

ggtagcagtc aggaattccc gggccgacgg gggattaatc aaataatata atttctaaca 60  
gttgggtctga aagttactct tcatagcaag tgccagaatt tttttccttt tctgttccca 120  
ccgggtgtga aactatcttg tagctgtaga tatattgatt atggaaggct gaagttcgca 180  
attgatgcaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aagaaacaca aaaagaataa gctaaaagat taactctaag gtaatcaaaa 300  
at 302

<210> 5144

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-011-Q1-E1-E7

<400> 5144

gtaccagtca agaattcccg ggccgacggg gacacacaat cttcacaaca ttctttgcct 60  
tctctcagaa aaatcaccga cattctgccca ttataccatg gaggcctgga ggaagacaac 120  
catgtgttgc ttgattcttt tctgccttat ggctacatgt agtgagggtt catctaccga 180  
aaacatgtgc tatcacaacc attggaataa atgccatcct gatcaaaatg gaatgtgtcg 240  
agatagtgtg gtgaaagatg gatgggatga tggacaatgc cggaacaggt ttaaaagact 300  
aaagggtgcc aagtgcgaat gttaccctaa gacttgtgat cattanggag gcaacatgcy 360  
actttcttct accaagttac tactatttat aaatttacat cggttttaat gattgacgtc 420  
aaacatgttg taacaccaat catggtga 448

<210> 5145

<211> 247

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-E8

<400> 5145

aattcccgga tcgacctcag ctacaacgga caggcaggca ccttgtcaca ctgcgagaac 60  
 gccaatgccca cctatgttgg ctaccagcac ccagagccat gcatctagac gtacggccaa 120  
 ttgggtttcc tttttcctct tctaaagtta gcgttttcta aacgttttgt tggttcctgg 180  
 tgcttaaata taggacctg aaataattgg atttaattca aaataagtca attctaatac 240  
 acacgaa 247

<210> 5146  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F1  
 <400> 5146

gggtcgacgg gccggactgc gagaaagaat tcgagaatga gctggatttg cttggcagga 60  
 tcaggcaccc caacatagtg tccctcctgg gcttctgcgt ccatggtggc aatcactaca 120  
 ttgtttatga gtcctatggag aagggatcat tggagacaca actgcatggg ccttcacatg 180  
 gatcggccat gagctggcac gtccggatga agatcgcgct cgacacggcc aggggattag 240  
 agtatcttca tgagcactgc aatccatcgg tcatccatag ggatctgaaa tcgtctaata 300  
 tactcttggg ttcagacatc aatgctaaga ttgcagattt tggccttgct gtgacaagtg 360  
 ggaatcttga caaagggaac ctgaagatct ctgggaactt gggatatgta gctcctgagt 420  
 actta 425

<210> 5147  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F4  
 <400> 5147

cgggtcgacc ggggtccta aggtcgggga aggtctctgat taccaacttg taacgcctc 60  
 gatgcggcta tagtcccat gtgtcgaggc acgacttaga ggcataaccg cattgaaagc 120  
 aatgtcgcaa gttaggcaat cttcacaaca tcccatgtaa tatagataat aaaaggggag 180  
 atacatagtt ggcttacact cgccacgtca atcaaagtac ataaatagca ttacaacatt 240

caaacactca tggcccgact atggcgccaa aatgaaagat aaacccaaca tgcgacacgg 300  
 tcccgatcac cccaactggg caccactact gatcatcagg gaaagacaca tagtaacggc 360  
 gtgagtcctc ctggaacttc cacttgagct caagggcgtc atctggaacg gaatcatcag 420  
 gccctgcatc tggtttgg 438

<210> 5148  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F5  
 <400> 5148

gtaccagtca agaattcccg ggccgacggg tgcgaccaat agtgatggta ttgaactacg 60  
 gtcacatcta tttaggaatg atgtaagata tttactatct gtcctcagtg catatcttgc 120  
 atacataatt tttttgctaa actttcattg ctaagtgtat taattaagta ctatacggcg 180  
 ttcttcaaca ggactgccga tgacagttgt gcctcagggg atcgagacta aaggtcagat 240  
 gtcaattgtt agcttacggc caagatatcc tgcattgcac atgaatgcat tcaggatttc 300  
 tagaagcgat gaatgcttaa tagtgaaaga ttggaggaaa attgttaatg atcgagaga 360  
 agtactacgg ggcagcaatg agaagcgcaa cccacgatta ggagacaggt tcactctgcat 420  
 gccccagtat gatcaat 437

<210> 5149  
 <211> 188  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F7  
 <400> 5149

gggtaccagtc tagaattccc gggtcgacgg ggctatctag ttataaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tacaacaaaa aaataacaac aagaaagaca 120  
 aaccggccgc tcaaacgggt ccaagcctac ctactcatgc atgtaacgct ctaccgcctc 180  
 aaaaggggt 188

<210> 5150

<211> 375  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-F8  
  
 <400> 5150

aattccccggg ccgacggggg tcagaagaca actaaagagg gacaactcaa aggaacatac 60  
 gggttttctga gttgtggatg cataagttag tatgtcgaac aagttcaaca tatttcttcc 120  
 agataaccca tgctaaagag gaaggactgg cagattcaca atatagaatg gagaactcat 180  
 cgagagcact tttgttgtga tctttcggct caaaagaact tctgccaaga atggttcatg 240  
 gtatttggca gaatgaaata ccacggacct cgaggactat cgcaacagtt actaataacc 300  
 taaaggaact agcagatact accatcaaga agtacgtaga gtgaatctcg ggttcaaaaa 360  
 ccaatgagta gaata 375

<210> 5151  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-F9  
  
 <400> 5151

gtaccagtcc agaattcccc ggtcgacggg atatactgta tagctttgga tccaaagaga 60  
 gccagaaact ggatgcctcc tagctgctac agtgatgtta cctacatgct atctggagtg 120  
 taattcacag atatactgta tagctttgtc cgactagaag ctgaagtgtat atgttaagta 180  
 tcgaatgact gaattagaga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agggggcccc caaagggttt aaaccttaat 360  
 ttcccttgaa gggaaattta aacccctca aaagggtccc caaaattcaa ttcaagg 417

<210> 5152  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-G1

<400> 5152

gggtcgaccc tgatataaat actttggttg aatctgatcc tttctatggc tatgaatctg 60  
aaactgttgt ggcacatctt acaaaattaa atgatatagc taccctgttc actaatgatg 120  
agaaaactcg ctactattat atccttaa at ttttccatt ctcatataag ggtgatgcta 180  
agatattttt tgattctctt gatcctgggt gtgtgcgtag tcccaggat ttgatttatt 240  
atgtctctgc taaatatttc cctactcaga agaaacaagc tgetttaagg gacatatatg 300  
attttgtgca aattgaagaa gagagtctcc cacaatcttg ggggaggctt ctccaattac 360  
ttaatgcttt gcttgatcat cctctcaaga aaaatgaaat acttgatata ttttataatg 420  
gactaaccga tgc 433

<210> 5153

<211> 407

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-011-Q1-E1-G11

<400> 5153

attcncgggt cgacggggca taatattgat catataatct aatcatagca tgaatattaa 60  
gacacgagtg attcaaagaa atagtctata atttgacata aagacattaa tactcaggca 120  
tcccacaaaa caatcctgcc tttcaaaata tcaatgctaa agatcggttat ccatacaaaa 180  
tcgtatagtt gtaacacccg gataattaag ctactgtaat cccctgttaa tgatgccagg 240  
tcacgcgttt tactgttgct agaaatcacg ttcatccaat atcagttcaa attcaaattt 300  
aaaaacaaag taaaaattta tagttttcaa aatgtcgaaa ctaaaaaatg caaaccatga 360  
caaataatcc agaggtaata atgggtgaaga aaccagattt tttaata 407

<210> 5154

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-G4

<400> 5154

gggtcgaccg gggtgcataa ttattagact actcattgag cttcacttat atcttttga 60

gtagtttgtc atttgcctca atgcttcact tatatcgttt tagagcatga cgggtggtttt 120  
 attttgaaga aatagatgaa ctcttgtgct tcacttatat tattttgaga gtcttttagaa 180  
 cagcatggta attttctttg gttatgaaac tagtccta atgatgggca tccaagatgg 240  
 gtataataaa aactttcata taaagtgc atgaatactat gagaagtttg atacttgatg 300  
 attgttttga gatatgaaga tggatgatt agagtcacgc tagttgagta gttgtgtatt 360  
 tgagaaatac tttgtgtaaa gttgtgatt cccatagcat gcatgtatgg tgaaccatta 420  
 tgtgatgaa 429

<210> 5155  
 <211> 181  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-G7  
 <400> 5155

taccagtcta gaattcccg gtcgacggg ttagaaattg taaatatgca ttgttgtatc 60  
 ggcacctgaa tgaatgaaat aaacgaaata acgctcttgt tcaaccgtca ggctccggtt 120  
 cagtactgca ccaagctgtt attttttgcc tttttgaaaa gaagcacgtg tcgctgtgtt 180  
 t 181

<210> 5156  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-G8  
 <400> 5156

attcccgggc cgacgggagc acaaacagaa ctacaccgga cagggtgacg acttgatcta 60  
 ccactccaag gggcacgctc tgaaccagg gcaaaggagc tggacaagg accagccttg 120  
 ggaaccaaag aaagaagagg ccacctgatc tgtatgaatg gtacctgata atcctcttct 180  
 atgtttcgca tttggttttg tgcgcggat ctaaaaccgc cagtcacctt gggttcatgg 240  
 actggacctg aataatgtac tctatctgat actgaatacc tgccactgaa caattttaat 300  
 ctctgtggat gtggcaattg agaaactggc gattcggctg tcggtgtttg cattgaagag 360



ttttttttt ctactgatgt c

381

<210> 5157  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-H6  
  
<400> 5157

aattccccggg ccgacgggac cgattacaaa tctcggttaag accaaaatta ttgcaacagg 60  
aaccagagag tttgcaagcc catctccgtg agactgagat cccattggtg agatcaaact 120  
gattaggggtt tctggtagtg gctatgtcaa gtgaactcgg tggctccgga tagatcaaact 180  
tggtagggct gagtttgaca tttggtttgg gacatatgtg gatatgagaa agtgggttag 240  
ggctttggag catatcacta agcactttga gcaagcaagc cattaagaaa cacctcatcc 300  
ctttttaata gtattgactt tcctaaggac tcaatgtgat cttgaatcac taaaatgaaa 360  
acgtagagtc ttgagctttt gagcttttgc caatcctttg ttcttagcat cttgtaaggg 420  
ttccacatcc tcttgt 436

<210> 5158  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-H7  
  
<400> 5158

gtaccagtct ggaattcccc ggccgacggg ttgctcaagc actctgacaa ggagagcctt 60  
gcgagaaaga acaaatcagg attcaatgcc ctgcacatca ctgcaaagga aggccacgga 120  
gaccctactt gtgccattgt gtgttcctcc acttctggcc tctccatta ccagtgacta 180  
aactacaat aaatatgcaa ataattagtt ttgctacact atagtagcaa caatccttgc 240  
gtgacaatta ttgtaccgat tacatcatag caaatcatag caaagggaca atatgagggg 300  
ccttcaaact gcagtttgag agacaatctg tttgtcctat ggaggtgctc aatggactta 360  
acatcagaat agcctggctt tcagaagaaa agatgacagc tttattttgt tgttgtagtg 420  
tgctattcgc gaaac 435

<210> 5159  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-H9

<400> 5159

cggtcgacg ggctaaaaaa aaaagagaaa aaataaaaaa aaaaaataa aaaaaaaaa 60  
 aaaaaaaaaat aaattcagaa aaaaataaaa atacagaaga agaaaaaatt taaaaaaga 120  
 aataaatgag aaaaaataaa aaaatataaa taaaaaaaat agggggcccc cagaggttta 180  
 aattttattt tgtctttctt gcaactttaa gacccttaat cgttttcctt aaaatataat 240  
 ccttggggtg tttttttaaa acttctaaag gggaaaaccc ctggttttac ccaatttaac 300  
 cccttttgaa aaaaccccggt tttcactaat gtggttttgt ctgaatgggc ccacatttta 360  
 ccccttcca a 371

<210> 5160  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-C5

<400> 5160

attcccggt cgacgggaag gcctatgttg gatgatatta tctcacctga acaaagtgcc 60  
 tttgtttctg gaagaatgat aacgaacaat gcactaattg cttttgagtg cattcattat 120  
 atcaagcaag aaaaagatcc aacaaaaagc ttatgtgcat aaaaactaga cctgtcaaaa 180  
 gcatatgatc gggtagacta gaacttcttg aggcaagtga tgcaaaagct ggggttttga 240  
 tcatcgatgg attgactgga ttatgacttg tgtcacatcg gtgagatgtt cggtaagatt 300  
 taatggaacc ctcttgatt catttgcacc gtcgtgtggc ctacggcaag gtgatccact 360  
 ctccttttgc gtgtttctgt ttgttgctga cgggctttct caatcctacg acaacgtgtg 420  
 gatgt 425

<210> 5161  
 <211> 114

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-D10

<400> 5161

gccccaaacta caaggggtggc acaaaaaaaaa aattcggcgg ctcaaaagggt tccagcctaa 60  
 cgaacccttg catgcaactt acttgccctc caaaattctc gcttagattc agtt 114

<210> 5162  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-D5

<400> 5162

attcccgggt cgacgggaat gcctaaacgc ccggcaaatt catcagcaag gaagaaacca 60  
 taacttgga cgcgggtgct tcaaagtgct aacaagactt ggaactccag caaaggaaga 120  
 ttgtacatat gtgactttgt ttaggcagtg tagggagggtg ctaggcacaa ggtttattct 180  
 gtgcgacca gtgtatctat gttgatatgt taggggtgtgc ttatccacac tgcactagtt 240  
 ggtagccgtg tgcaaaatat gtatagtacc agtggtttgg cttgtatgtg tgatacatgt 300  
 gtgtatcttg actgcttggt aatgtaatgg cttggttgct tgctt 345

<210> 5163  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-E5

<400> 5163

ggtaccgatc taaaattccc gggtcgacac caacaaacat gtagtatatg atgggtcccc 60  
 cgattctgca tcaattttct cactgcatct tggctgtaaa cggactgtag catcgattgt 120  
 tggagagaca ggatcttcaa agaactcctt tgctgaaact gtaattatgc agtcattctc 180  
 agcactcgaa ctatccactt tgataaaagc tccagattct tgctaatct gtttgataat 240  
 accacctctt tttccaatta cacctccgac attcgccgca gcacaaagca gacgcaggct 300

aaactctttt gcagagctca cctccctccg ttgttggtat atagaaggcc aatctcccac 360  
catatcacct ttgtatcgtc cataaggact aaccatagga gtaatcccta caactgggtgc 420  
agtagaggaa ctnacaaggc gggatcc 447

<210> 5164  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-E6  
<400> 5164

aattcgcggg tcgacgggga gaaagaaatt agtgcaaaca aatctcacat tagttccggt 60  
aaccgaccat gcacgccgat cagctattac cggcgggtcg cgccgcgggtg gccatggctt 120  
gcctgctcat cgccggcccg gccgacggcc tcgaggagta cgcccccttct gccgcgggtga 180  
gcctggagat tgagccgctg tccatgaacc agaaccccg ggagttcctc ccgcgaccgg 240  
aggtgatgtc gctgccgacc gatctgctct caaggccaga cgtgggtggc gacggtgagg 300  
ggtagtccc gcatgtggag gttgtgccag aggtgggtgt gcagcccga gacccccctcg 360  
ccgaggctct cggcgggtggc tcgtatgcat aggagccatc gacagagccg gtcacgtca 420  
t 421

<210> 5165  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-F5  
<400> 5165

ggtaccgatc tagaattccc gggtcgacgg ggcttcgtaa acggtgccct gttttgtagc 60  
gactgactac aatggtaggt tgcgtacgtc cttatacat cactactagg tgcttatgtt 120  
acttcgttct gtccggttat tagcactcat gtttactttc gcactgagaa ctgaaaaact 180  
gaatgtaaatt ttagtatgga tgccgtgtat gtggaccttg tgttgtaatt ccgtttaaag 240  
caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaggaa aaaaagaaaa aaaaataacc aacacataaa ggggtctccc aataggttca 360

aagcttttagt ccacggacgg gcaacttcat accgctgcta ggatgtaacc aa 412

<210> 5166  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-F7  
 <400> 5166

gtaccgatct agaattcccg ggtcgacggg ccatgccaaag tttcatgatt ttctggtgag 60  
 ttttgattt gcggatattt ccaaactgag attgcaatgt ttcgagccag gacgccgaga 120  
 cggttgaatt catcctcatt ccttccgtgg gacctaaca tgcatcccaa ggacacatgt 180  
 acatttttct agccattttg gtgcactaaa gcatgtattt gtagtttgta tttgaattat 240  
 ggacattcct ataaaactcg gctaataaaa caataaggtc aaatgaaccc tgaataattt 300  
 caaagttcag cgtgaatctc ctgttgctcc atgttacgtg tagaagaaaa tacaaggcta 360  
 aaagagggag cgattatcct ttcaccaca aggggacacg tttccctatc gaaaccacga 420  
 cggttcttgt gacaaggctc cggttt 446

<210> 5167  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-G1  
 <400> 5167

acggtccaga aatcncgggt cgacgggttc tgttatgtgc ttttataaag tttagaaata 60  
 aaagtaatgt gccaagggtt gccttttagga tgtttaacgat gcttggttggg ttgtgtggtg 120  
 caggacagaa actttggctg tagtgcgca ttttacatgt tttactggaa tgtcaaacgg 180  
 ttctgattct ttttgactg tctttccata caaattgttt atttttccaa attttggcag 240  
 aattttcaag taacataagt atggttaatg ttcagattgt tacagactgt tctgttttag 300  
 acagattctg ttattgatgc atagtttgct tgttttgatg aaactatcaa tttatatcag 360  
 tgtattaagc catgaaaaat ttatactaca gtagacatga tgcaaaaaca aaatatgaat 420  
 tggtttgcaa cagtacttag ag 442

<210> 5168  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-G5  
  
 <400> 5168

```

ggtaccgatc tagaattccc gggtcgacgg gaccttggga tccgggtgga tccattactt   60
gagcactata tgcttagctt aatggcttta aagaaagcgc tgccagggag acaacccgga  120
agtttttagag agtcatttat ttctgttggtg tgcttttgta aagtttaaaa acaataataa  180
cgtgccaaagg tttgccttta ggatgttttag attgcttggtt ggtttgtgcg gtgcggaaac  240
agaaactttg gctgtagtgc gtgattttac attttttact gaaacgtcaa acggttttaa  300
atttctttgc actgtcttta tatacaaatt gtttatcttt cctaattgtt tcataatttt  360
tggagtagca gaagtatggt gaatgttttag attactatag actgtcctgt ttaagacaga  420
ttctgttttt aatgcatagt ttgc                                           444
  
```

<210> 5169  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-G7  
  
 <400> 5169

```

ggtaccgatc tggaattccc gggtcgacgg gaaccatcca aggatttgaa gcacctaaac   60
ctgaagttat ttataatggt tgggttcgag gatgaagaca aggtgacaaa ctatataagg  120
cttgatcatg aacgtgccgt gggcttgaaa agaatcgagt tgcattgtag aagcccatgc  180
aatgggtgcg atgccatcga ccttgagtcc ctgagaagat cccaggcgga tgaagctagc  240
aggcatcgga ttaaggagca actcagacat ggatcttcct cgtccgtgga gatagtaatc  300
tgctgatgga tatggtgaag gaatgataaa tttcataaag ctgctcgagc gatgactgta  360
cgaagtgcag gcagtcgtaa ttttaagttc agttattgat agtctggatg aatgttttgt  420
ttttgtccaa tttacggagt aatta                                           445
  
```

<210> 5170  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-H3

<400> 5170

ccggtcaaga aatcccgggt cgacgggaag gtcacacaga atatggccct caagctaagg 60  
 aacaccgaca ctggcgagct catcatgcac ctggagtggg ttaacctccc ccagggcatg 120  
 tcgcggtgat ttgatttgat ttgcagaggg aggccagcta ttgtctgcct tttgtgatcg 180  
 taatgttgct tcctctatat atgagctatg aaaataatta agcgtatgcct atctcattct 240  
 ttacataaca cccaccgtaa tgatttggg atctcaccag gatgggtgcgt atataatatg 300  
 agcaacgtcg tggtagatc cgcagatcat cacagtgggt gctacgtaag gcatgtgata 360  
 gacttatgct gctgggggta atgcttgctt tcagttttgg ttctgcatat gttgtatggc 420  
 tattttaata caaaaaggta tttt 445

<210> 5171  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-H5

<400> 5171

ggtaccgatn cagaattccc gggccgacgg ggtataagcc atggaaaagt tataatacag 60  
 tagctacagt gcaaaaacag aatatgaatg ggtttgcaac aatacttaga gtagtgattt 120  
 gcattattat actaacggat cttaccgtgc tttctgttga gttttgtgtg gatgaagtga 180  
 tcaaggatcg aggaggtctc gatatgagga gaaggaggag aggcaagagc tcaagcttgg 240  
 ggatgccccaa ggcaccccaa gtaaatttc aaggagactc aagcgtctaa gcttggggat 300  
 gccgcggaag gcatcccatc tttcgtcaag aagtatcgat atgttttctg cttcgtttcg 360  
 ttcattgtgat atgtgtaa atctggagcat cttttgtgct taattttcat ttttccttta 420  
 tgcaacatga tggatatgag 439

<210> 5172

<211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-H7  
  
 <400> 5172  
  
 ggtaccgatc tagaattccc gggccgacgg gggggagggtc atatgtacaa taattgtgcc 60  
 caaggaggac gcgaaggaaa gggctgaaca gttttcgaag ccagcactaa ccttagaaga 120  
 attgacaagt tgggtcaaaag ataaacttgc tccatacaag attccgacga gattgcacgt 180  
 atgggactct cttcctcgga atgccatggg aaagggttaac aagaaggagc ttaagaaatt 240  
 attagagggtg tagccatatt tacattgatg tacctatttt tcaatcgcac ctttctgcga 300  
 ggcagacata tagtgggtgtc agctaataat tttgttctgt tcgacaataa tgataattta 360  
 gagcaactat agtaaattgtg caagtaaata atgcacacta tcctatgata tcttaaaagc 420  
 gagaatgtga aataactaga 440

<210> 5173  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-A1  
  
 <400> 5173  
  
 taccgggtcca gaattcccgg gtcgacgggc tcttattaag gattatgttg atgggttgca 60  
 ttttaccgtt gcacatgatg attttgatga atgtaatatg catgttcttg ctgctcctac 120  
 ttgcaattat tatgagagag gaactacatc tccacctctc tatgtttcca acacgatgaa 180  
 attgcaagaa actgcttatg ctatgtactg gccattactt gatgogcacg aattgttctt 240  
 gtatgacatg ctgatgcata ggaagagagt tagacttcgt cattgcttga tatatgttgc 300  
 tttgtgctca ctactaaatg ccaaatacatt gttaattaaa attggctttg atataccttg 360  
 ggatccgggt ggatccatta cttgagcatt ttatgcctag cttaatggct ttaaagaagt 420  
 gctgccaaagg gagacaaccc g 441

<210> 5174  
 <211> 375  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-A10

<400>       5174

```
attcacgggt cgacggcggg cttcagcgag gtctcgaggc ataaactcct caagaacatc   60
aaaaagggtg gccccgaac cggaaccggc ccaaaccaat tcgccaccgc caacggcggc  120
aacctcaaaa ttccgtcggc ccgccggctg cctgtcatcg tcgccccgtg tcccgtgtcg  180
tcgatctaaa taagagagtc gtgtgtcgtg tcgtgtcatc cccatgtccg tccgatgaga  240
tctccgtggt tgggttagga gggtttagg tggactcttt tggccgctgg atctgtgtcc  300
ggcggccatg gttatcttcc tgtgtctgct gctatcttac tgtttgaatg agatgaactc  360
cgctatgaat tatcc                                         375
```

<210>       5175

<211>       434

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-013-Q1-E1-A12

<400>       5175

```
attcacgggt cgacggggtt ggcgacgggt aagacatgat cgaaccgaag ctagctgata   60
ccaaattgtt atggtgctgc tagaaggang gcgcgagaag gccggccggg ggccttttgc  120
ccatggccgg gcaagatgga agggatttcc ttcttaattc ttgcttgatt agattgatac  180
atctcctctc tttatataga gaggtttact tgactcccaa gcaaggctta cttgatccct  240
aagaaagcga cccttatctc taattaacct taagactaac gggctatacc gccagcccag  300
gccattaggc ccattacgta ctctaacaca gtcataagat tgtaactagt aagattttta  360
aaacatcaaa actactgttc tttgtagttg ttaaaaacac gacatccttc aagttcatta  420
acaatatatg acaa                                         434
```

<210>       5176

<211>       454

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-A2

<400> 5176

gtaccggtcc agaattcccg ggtcgacggg ggcaaggacg ccgaggaggt tctccagccg 60  
gacgagggca agggcccgat ctccctcatg ttcccaatct tcagcgcggc aaccatcgac 120  
cagatcttca ccacctcaga tacactgtct ctccccatg ggcccgctca tgcattggtga 180  
agaccccttg ctccgaggtg gtgccgtggt caagaggaga agcacagaat atggatggag 240  
gatggggaat acatgcagaa ggcggaagct ccatgctcag ctcagctctc aactacactg 300  
ctctaagact acttgggtgag aatgtcgatg atgagcaaga tatgtccgtg ccaaaaacaa 360  
ggaaatggat acatgaccat ggtgggtgcaa tgatgataaa actggaagca agatgcttgg 420  
attttttgac aggtcaggtg taaaccctac cccc 454

<210> 5177

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-A3

<400> 5177

taccggtcca gaattcccg gtcgacggg accaggagcc acaagcggtc gatgaccagg 60  
agcagtcata ggaaactata cttacacgtt gacagttaca agaacctaca tacatgttcg 120  
ttcaccacgc ttgatgttgc tcttgtgtat tgctgctgct gcccatcttt tttctcatcc 180  
cacacatgca cgcaactggat gttatgcac ttatcgctt ggctatcgca atcctgaatt 240  
ctgcagtaaa taacttaaaa aagattcatc acaagcggcc tgctcaacag gatcctagct 300  
tacgtatgct tgcattcgac gtcatacttc ttctagattg tcaccttaat tcaatt 356

<210> 5178

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-A4

<400> 5178

taccggtcca gcattcccg gtcgacggga ctgttcagtt tttgacagat tctgttttca 60  
ttgtgttgat tgcttatctt gatgaatcta tggctactga aatagtttat gatccataga 120

taagttggaa tacaataggt ttaataccaa taaaaataa taatgagttc attacagtac 180  
 cttgaagtgg tcttttcttt tcttccgcta atggagctta cgagttttct gttgagtttt 240  
 gtgttggtga gttttcaagt tttgggtaaa gattctatgg actatggaat gaggagtgga 300  
 aaagagccta atcttgggga taccoaatgc accccaaggt aatattcaag gacaaccaag 360  
 agcctaattct tggggatgcc ccggaaggca tcccctcctt cgtcct 406

<210> 5179  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-A5  
 <400> 5179

tacgggtccag aattcccggg tcgacgggat gcagaaaagg acacatgcgg gctgagagga 60  
 tttgaagtaa tttccaaaat ctcacccgtg ggtatttata tccctaccct gtcgggtgtga 120  
 ccgagtggaa caactcagtg gcaccgagat tgcagaatcg caagcggttg ctccaactca 180  
 gtgtgaccga agtgttcaaa tcggttgac cgagatgaaa acctagatca acttagtgaa 240  
 ctcggtttga acgaaatgga tgtctcggtc agaccgaaat gcacaaagag gttttggaag 300  
 ttttaagtcta tgaagaatca gggactccga gtgctcctca cacagagtgg ttcgaatctg 360  
 acttgatcaa actttgtgat gtagcatgaa tagagtttga gacgagaaaa gcatagat 418

<210> 5180  
 <211> 295  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-A6  
 <400> 5180

gtaccgggtcc agaattcccg ggctcgacggg ggggttcaac gcggtgccgt acgtggtggc 60  
 gctcttcagc tgcattgctg ggatcttcta cgcgtgggtc aagaccaact ccagcccgtc 120  
 gctcaccatc aacgccttcg gctgcgtcgt cgagggcttc tacatcctgc tctacgtggt 180  
 gtacgcgccc aaggccgcca agcaacgcgc cctcgcttcc ctcttctcc tccaagttgc 240  
 cgcctttgcc ctcaatggct ccgttaacgt tctcctcgtg cccaaccca accgc 295

<210> 5181  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-A7  
  
 <400> 5181

taccggtcca gaattcacgg gtcgacatat ctaagacaaa gaagatcgcc ctaaggacat 60  
 tgatcgacca ctctgtcgtg gaaagttttg gtgccggcgg caagacgtgc atcctcacga 120  
 ggggtctacc gaggaatgcc gtcggggaca atgcacacct gttcgtcgtc aacaatggcg 180  
 agtcggacat caagctcacc aacctgcgtg catgggagat gaagaccccc acgatgaaca 240  
 agcgtctggg gcagtagcaa cagcccggcc cggtagatcg aggattcaga gtagcctaga 300  
 ctagccatag ctagctagct tgttgattta gttgagatta attaggagag gtccaggttt 360  
 agtgatgagt tgttagaaag gaccggaaat gatccatttt gtttcagaac cttttccaaa 420  
 tggc 424

<210> 5182  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-A8  
  
 <400> 5182

gccggcagta ccggtccaga attccccgggt cgacggggca ataagcacat aacacaagcg 60  
 aagaaaaagt gaagactttc tatcaacaac tattataatg atgcctttga tgtagaatat 120  
 cactgcagtt acatttgaac aaatgaaatc cctttttaac agatgagttt tcgtccgaaa 180  
 ccctgatact tccaaagaga ttgtctgttt tgtatccagt ttttgtcata accctttcaa 240  
 ctttttagca catgctatat gggttaaatg atgatccat gccaaactttc aaccttttca 300  
 gagttcattt gtattgcttt tcaattaaag ggtcattgag ctcaaataat gaactaatac 360  
 caaaaagaat gaactaatag caaaaagaat gaagtgaaag ccaaaagaat gaactaatag 420  
 caaaaacaaa gaactaa 437

<210> 5183  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-B1  
  
 <400> 5183

```

gtaccggtcc agaattcccg ggtcgacggg attattgatg tgcctcatga aaatgaagat   60
gatgcacttg atgatgatct cgttatgcct attgcttggt gtgatgatta tgattgggaa  120
gataatgata cttcttatga tcttgaaaat ctttttggca cttgcttgga atatgacaat  180
tgctatacta ttggtgctat ccatactact aatgatgaga gtgattatgc ttatgatatg  240
aaaaggccca agcttgggga tgctatgttt gaagaatatg atatttttga gaatatattt  300
gctgcaatta atgtttgtcc caagcttggg gatgctacgt ttaatgaaga tgatattttt  360
agcccccccc cccaaagttt tgatatgcaa agttgttatg atgatag                    407
  
```

<210> 5184  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-B10  
  
 <400> 5184

```

attcacgggt cgacggggacc aagatctgaa attcttgaat gagagagagt cttcacatag   60
ttacacaatt atttagatac tcattgatct tcaattatat cttttggagt agtttgtcgt  120
ttgctctagt gcttcactta tatcttttta gagcacgacg gtgggttttat tttgtagaaa  180
ttattgaact ctcatgcttc aattatatta ttttgagagt cctaaaaagc atggtaattt  240
gaatgaaaac tatcatagga ggtgaattgg atgccatgat caatttgata cttgataatt  300
gttttgagat atggaggtag tgatattaaa gtcatgctag ttgggtgatt atgaatttaa  360
agaatgcttg tgtttaagtt agcaagtcnc gtagcatgca cg                        402
  
```

<210> 5185  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-B12

<400> 5185

gggacaccct atagtgagtc gtattatttg aactcgggac ttcttttgtg ttcagtatgc 60  
agcattctaa acgacgtcac caattttccaa catgtttctga catcatttgt tgtttttcag 120  
tcattttacct aattgttttag agagctaaat gaccatgaaa ttgaaaatca ctagaaaatg 180  
aactgtgaaa atgttgaaac ttggcatggg atcatcattt caccgcata gcatgtgcga 240  
aagagtagag agggtcacgg caaaaactgg acgcacttcg tgtacaaact ggacaatctc 300  
attcggagta tcagggtttc ggacgagaac tcattctatta cacgggcact ttaatgtttt 360  
ttaaacttat ttgaactcgg g 381

<210> 5186

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-B3

<400> 5186

ggtaccgggc cagaattccc gggtcgacgg ggagcacaag aaggacggcg agcacaagga 60  
gggcaggaag gacaacatcg gcgacaagat cagcggcgac ggccacagcg acggcaacag 120  
cgacggcgac cacaaggaga acagcgacca gaagaagaag aaggacaaga agcacagcga 180  
gggccacaag gacgacgacg gccacggcaa caacaacagc gacagcgaca gcgactgagc 240  
cagctccggc cagcaccggc cagcagcgtg cattctatgc aagatagatg aacgcttggg 300  
agaagtgtgg catacatata tcttgcattg tttggaccgt gtggtaccaa atgttcgtaa 360  
tgcgtgacat gtcgcatgga tcctgtg 387

<210> 5187

<211> 83

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-B4

<400> 5187

taccggtcca gaattcccgg gtcgacgggg agcacaacac ggagtggcag caccacgatg 60

gcaagaatga tagcatgaac gac

83

<210> 5188  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-B6  
  
<400> 5188

gtaccggtcc agaattcccg ggtcgacggg cgttgccaac ttgattgagc tcttgttgat 60  
catctcattg tcattggcct ctatcatcac caaagctctt acttcttctt gtttttgctt 120  
ttccctcttc ctcttctttg gtgcctcatg tgcagcccta catcgagcct ttgtttctgg 180  
tgtggcttgc atacaacttt ttattgcccc ttgatacca gctatgtgtt gcttcactct 240  
agtcacccca cctgacatct cctttccaca aagaatgcac ttgaatcttt gcagatcatc 300  
tggatcaatc agcacaacaa attcccaagc catgtcatct gattttctct taagtttggg 360  
acttgcaacc tctgaagtac cagaatcagg catctacaaa aatcacaagg gcaatagcat 420  
gtattatagt attagtatta gacggt 446

<210> 5189  
<211> 150  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-C1  
  
<400> 5189

gtaccggtcc agaattcccg ggtcgacggg catcaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa gaaaaacaaa aagataaaaa aaaaaataa acaagaatga aaaagtcata 120  
actcatcaaa aaagtcacct aaattcaatt 150

<210> 5190  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-C10  
  
<400> 5190

attcacgggt cgacggggaa gataagatta ggaaggttca ggagctgaac gcgaaagcga 60  
aggctgcttt ggagaacggc tggctgctgt gcatgaatct ggacaagctg gtccaatccg 120  
tcgtctgaaa attagcgcag catgtcggtc ctgaataaat tctgctgctt tcgtcattg 180  
atgaacagat tggggttgtt tcttgcttgc ttggaagatc gagagtgaac aacatatcct 240  
atgttgtaag ttgcaactgt atctcatgcc aactcaataa tgagtgggac cgaaaaaaat 300  
catgatggag caattcaaaa ggtcaagtag gatgtcataa ttgtcatcga aggatgtttg 360  
gacctcaaaa aaatcggtcg cttcaaaagt atcaaactta agttccctt 409

<210> 5191  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-013-Q1-E1-C11  
<400> 5191

gtagcgtcca gaattcacgg gtcgacgggt atgtgaacaa taaggctgtc caggctctac 60  
atgttttgca tctgtagtcc tcgtagacgc gggcgacatc taacttgatc ttggattttg 120  
cgtattgctt caatacagtt ccggtacaca aaaatacgtg atcaataaag ccctcctggc 180  
tctacatgtt acatatgtat ggccaatctc ccgtatgaca cattagcaca ggcccacgtc 240  
agcctgagac ccatatgtca gtgggagcga gaaataagat aatgataagc aaaaatgggt 300  
gacgcaaagt ttccaacca caatccccag ccaaaatttg cgtgagcaag ccaccacact 360  
atgggccaaa ttcggtgaaa atcaggatga acattcctgt atataaataa cgctg 415

<210> 5192  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-013-Q1-E1-C12  
<400> 5192

ctcatgggtc gatgggggtc cctatagtga gtcgtactat tccctgtctt cccccctctc 60  
gtcgggtaag tcgcaggtat ggccaccggg taatcgggtc agatctcgcg ctcttgtttt 120  
cgctgttctt cgtttggttg taattccagg cgagcgttct gtttgggttg tgctgctcct 180



tattacgttg atgtcgatcg aggcctagtt ccggtgggtt gtcctcctct gttccgttga 240  
 tggttggtatt gtcttctgaa cctcgctgct ttggtttagg tcgcggttaa tctattttgc 300  
 tttgacttct gatctgattg ggtcctggct aatccatcat gctctgattg cgatatgttt 360  
 tagggtcgtg gcttatccat ttttatacta attgctgatt tga 403

<210> 5193  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-C3  
 <400> 5193

ggtaccgggc cagaattccc gggtcgacgg ggatgatcat gttgtccttg acatgacttc 60  
 tatgtgcaag ggcattgatat tcgtgaacgg cgaaggcatg ggtcgctact ggacgtcatt 120  
 cataactcct ggcaaagtcg cttcccaggc agtgtaccat attccacgga catttttgaa 180  
 atccaagaac aacctattgg ttgtatttga ggaggagctt ggcaagccgg aaggcatact 240  
 catccagaca gtgaggagag atgacatctg cgtgttcacg tcggagcaca accctgcaca 300  
 gataaagcca tgggacgagc atggaggcca gatcaagctc atagccgaag accacaacac 360  
 tcggggattc ttgaactgcc ccccgaagaa gaccatccag gaggtagtct tttgcaacct 420  
 tcggaaaccc ggtgggggtca tgcggcaac 449

<210> 5194  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-C5  
 <400> 5194

gtacgggtcca gaattcncgg gtcgacgggc accattgggt ctgagcggtt ccggttgcct 60  
 gaggtcctct tccagccatc cttcattggg atggaagctg caggatatcca tgagaccacc 120  
 tacaactcca tcatgaagtg cgacgtggat attaggaagg atctgtacgg caacattggt 180  
 ctcaagtgtg gtaccactat gttcactgga atcgctgata cgatgagcaa ggagatcact 240  
 gccttggtc ctagcagcat gaagattaaa gttgttgctc ctctgaaag gaagtgcagt 300

gtctggatcg gaggatccat cttggcatct ctcagcacct tccagcagat gtggattgcg 360  
aaggctgaat acgacgagtc tggcccatcc atcgtgcaca ggaaa 405

<210> 5195  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-C6  
  
<400> 5195

taccggtcca gaattcccgg gtcgacacgg agcaccaga tgtatctatc acccctcacg 60  
ctcactctat ggcctgaaat aacctccccg agcctggtag cagcggtttg ccgacttcca 120  
caccaccatt ggtttcatct tcacatgttc gattcgtcgt tgtttgccct ctgccatgac 180  
actgacatga gctacctttt cttctatctc ctccgacacc atgtttcacc gcatgatcag 240  
ctctttccac taggcgctac attacatccc agatgttgag gtccgagaca cctccaatgg 300  
cttcttcctg tagcatgcca agtatgtcag ccggtactt gatcgagggt gcatggccag 360  
tttccagcca tcacatccct ggtagacacc cactccaagg tctctgccac caccggctca 420  
gctgctgctg atgcaagctt ctactggact a 451

<210> 5196  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-C9  
  
<400> 5196

attcacgggt cgacgggggtg tgtaaggggc tgagaaatca tgtgtggacc ccaaagtatc 60  
aagatatgta tcaaggccag tgttcctgaa atcagtgccca ttgtcacttc taagggtgctt 120  
tatcttggcg ccatagttgt tcattgctcg attggcgaag cgtctgaaga catcctacac 180  
ttcagtcttg tagaggatta tgtgcactca agtatatcta gaataatcat caacaataac 240  
aaagccatag aggcaagcag tagtagtaag agttgagtaa tgagtgggac cgaaaagatc 300  
catgtggagc agttcgaagg gtcgagtggg tgtcatgatt gtcttcgagg gatgtttggc 360  
cctcgtcatc ttccctgctt cacaggcacc gcata 395

<210> 5197  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-D11  
  
 <400> 5197

taccggtcca gaattcacgg gccgacggga atgatgaaac aggggacggc ggcggcgagt 60  
 ggggcgttta ccgggggagg cgatgttcgt gctggcgag gcgagaggaa gatctccagc 120  
 ctaccggcgt acctcgccac ggccgtggag ggctgccaca tcacgggcga catcgtgcgg 180  
 cgcttcgcgg agatggagct ctgccgctg ctccgttggc tgctgggctt cagaggggtcc 240  
 agggagcgcc tcctcaccga cgacctcttc atcgccaagc tcgcatgga gatgggcgtc 300  
 agcatgatcg ccaagaccgc tgccgagtac gagaagagac gggagaactt cgtcaaagaa 360  
 attgacatcg tcatogetga tgtgggtggg gtcgtcattc aagggatgga cctttccctc 420  
 aaggaaggg ccttgt 436

<210> 5198  
 <211> 258  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-D2  
  
 <400> 5198

tacgctgacg gtaccggtca taaattcccg ggtcgacggg ggctggcaga ctacgggcgc 60  
 ctgccaggt tgcgctgtga aactgacaa ggggctaatc agacagaatg tcgtggccat 120  
 gattatttct caccaccatt gttgcggtgg cagccacaat gcaagctgag accgctctga 180  
 ctacggagga gagctcattg aagactgcga cccatcagg atacgtgttg acgccaccgt 240  
 agcagctaca cgtgttgt 258

<210> 5199  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-D3

<400> 5199

cgctgccagt accggtccag aattcccggg tcgaccctga ggacctggac ggcttggcgg 60  
ccggcaacaa gcaggagcag gtgtcaagca tcgtctcgca ggggcacgag gacggacagc 120  
cggatgccgc cgccggcaac gcggacgcta aggccgagaa gccccacaag aaggcgtccg 180  
gcaagcaciaa gctccgcagc gactagaagc agtgcgcggtg agcgcggtcac tgccacaccg 240  
cgtacgtacg taactacgag ctgtcgcccc gccacacctt ccggcgacgc acgtaggcct 300  
ccatccagca gcgtctccat caaattgatt aattgcgctt tgaattactc ttcttcttcc 360  
tcgcggtact ctcttccttg attgtagaag gaacgagtga cgtactacca tacttcggct 420  
agttacttaa agccttgggtt aattttttcc t 451

<210> 5200

<211> 324

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-D4

<400> 5200

gtaccggtcc agacattccc gggtcgacgg gtaagacgag cactggttca cgcgagtgtg 60  
ctcttgcgac gtgggttttt gcaacagtcc ggaacgctgc acagtgagat gttcctttga 120  
gttttgtgtg tcttgctgga gttatgcatt gtgttatctc gaatagctgc cgtgctggca 180  
tttgatcat aatcttaatc cgttcgtctg acacaaataa attcaatcac agaataaata 240  
aatgcggacg atctatagga tcgaagctta cgtacgcgag catgctaggt cataactctt 300  
ctacagtgtc acctaatttc aatt 324

<210> 5201

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-D6

<400> 5201

taccggtcca gaattcccgg gtcgacgggg aacagcagct tgacgtgctc ggcggtgggg 60  
tccatcccgg aggcgcagct gaactaccg gcgatactgg tgccactctc caagaagccg 120

ttcaaggcaa agcggacggt gacaaacgta gggccggcga agtcgatgta cactgctcac 180  
ctggacgtgc ccaattggct caaggtgaag gtgcagccag aggcgctgga gttcacgtcg 240  
gcgatggaga agaagacatt cacggtgacc gtgagcagca ggggaggtga cgccgacgcc 300  
aacgccgggc agctggtcga ggggagccta cgctgggtgt ctgaagatca cgtgggtgcgg 360  
agcccgatca tcgccgacgc cagggttgtc ccgacatgat tctgtcaggc gctccctgga 420  
catgcttctc tcgcaagccg catc 444

<210> 5202  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-013-Q1-E1-D7  
<400> 5202

taccggtcca gaattcccgg gtcgacgggg agaatcaaca tgatggactg catctgcca 60  
gacgatcggtt ggcacggcca caacgaagtg catctctcaa ttccaggatc aacatgctgg 120  
acgaatcctc ctttcatggt aagttgcaac agtgcaagca aacaccatgg aggcttctgt 180  
agttagggac ggtgaatctg catcaacagt gctggatgga aattgctcgc cgtccttcct 240  
ccataaacca cgtagggacc ttgtattagc ctccccatct atccgtcagg aagccctgac 300  
tttccctgct attgctgtca aaaatgctac cttgttagca cacgaactga acttaagtat 360  
gtcacatgga gcttcaggta acaaactctaa aagaacccaaa attaagtgtat ggcatgtcnt 420  
tcgcc 425

<210> 5203  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-013-Q1-E1-E1  
<400> 5203

gtaccggtcc agaattcccg ggtcgacggg aacgctaaac tccgaaaagg tgcactgccg 60  
gagtgtgtgt ccgaggtaac actggtcttc ttcttcttct tccctcacac ggtcccagcg 120

gcaggagcaa gtgccctatc ggtggcagct gctgcacctg cttgcaggta caattgggtcc 180  
 tcgcaaataca tcggatcttt cttatcggac gggatggtga tgatcatcac aggtcgtggc 240  
 atcttcaggg tagttgtaag cgtagtgtga cgccgccatg aacttgacca acgtacgca 300  
 gcgatcgatg tcgtttagg gcaaagcgat cctggaaaca tcgtacacga ttctcttcgt 360  
 cctgtagttt agatcgcttt caaaagtcac gggtagcgta accttt 406

<210> 5204

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-E2

<400> 5204

cgctgccagt accggtccag aattcccggg ccgacattcg cccgcaggaa agcaatgagc 60  
 gcgctttcct atttggggc gagagtggca ctgatggtga aggtaccacc agtgccgtcc 120  
 tccttggcgg acaccttctt ggtctctggc ggagctgccca ttgtcttctt acacttgccg 180  
 gtggagctcg atggtgcgtc ctgcacggca gcgcagcact ccgaagaggt gcacttgccg 240  
 gaggggcat cagaactctt gccggacttg gtcttcttct tcccccgagg agcttcaacg 300  
 gcaggtgact tgcgatctgt tgcggctgtc gtttcccggt agatcttgtc agcgagata 360  
 agagcatcct tcttgcgcc agggacagag atgacgctta tcgggcttgg aatcttcagc 420  
 atgttgatg tgtagtgaga ggctgccatg aaactggtga gt 462

<210> 5205

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-E3

<400> 5205

gtaccggtcc agaattcccg ggtcgacatt cgcgcgagg aaagcaatga gcgcgcttcc 60  
 ctatttgggg tcgagagtgg cactgatggt gaaggtacca ccagtgccgt cctccttggc 120  
 ggacaccttc ttggtctctg gcggagctgc cattgtcttc ttacacttgc cggaggagct 180  
 cgatggtgcg tcctcgacgg cagcgagca ctccgaatag gtgcacttgc cggagtgggc 240

atcagaactc ttgccggact tgggtcttctt cttccccccg ggagcttcaa cggcaggtga 300  
 cttgcatct gttgccgctg tcgtttcccg gtagatcttg tcagcgcaga tcagagcatc 360  
 cttcctgtcg cctctgacag ag 382

<210> 5206  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-E8  
 <400> 5206

gtaccggtcc agaattcncg ggtcgacggg ggggaagatg ggagctctcc aatatctgaa 60  
 cttggctgac aataagcttg aagcgaacga caacaagggg tgggaattca tcacttcttt 120  
 ggccaactgc agccaactgc agaaattgat actcagcaac aattcttttg gaggacaact 180  
 accaggttca attgtaaacc tctcgacaac tctccaacag ttatacttag atgacactag 240  
 gatctctggg agtatacccg cagatattgg caatctgggt ggtctcaacg tgggtgtaat 300  
 agcaaatact tccatatacag gagtgattcc ggatagcatt ggtaagctag agaacttgat 360  
 tgagctgggc ttgtacaata atacgttgtc tggcctcgta ccgtcatctc tgggaaaatc 420  
 ttcacaattg aataagtttt atgcatacaa caacaac 457

<210> 5207  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-F1  
 <400> 5207

gtaccggtcc agaattcccg ggtcgacggg ccatcattcg ctttgaagca tccgccgccg 60  
 accatgagag ctctctctt cctcatgttc gcttggggga tcgtaggcca caaagttggg 120  
 catctagctt gtgggagaga gacgcatcca tgacagcttc taaaaaggtg ggagaagcga 180  
 ggattctaga ggagggatct aatgaagaag agagatagga gcagagacca ctgcacctta 240  
 tagcactggt gacggcgata gcttgcaaca tcaatggcca caactttgag agttgtgggg 300

gagcaaccga gaggggttcg atgttcgatt tggacagtcg cagtcggatc agagagcggc 360  
 ggaaggaagg ggagcgagcg agcagaagca aaagaggcng anggggagat ggggttcgatg 420  
 gcgccgggta aggetggcct ccttcttcgc ggg 453

<210> 5208  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-F10  
 <400> 5208

attcacgggt cgacgggtga ttataatact ctatgtgctt cacttatatc ttttgagcta 60  
 tatagttttt gctctagtgc ttcacttata tcttttagag cacggtgggtg gatttgtttt 120  
 atagaaacta ttgttctctc atgcttcact tatattatct tgagagtctt aaacagcatg 180  
 gtaatttact taatcctaata atgctaggta ttcaagacta gtaaaaaactt tcttatgagt 240  
 gtgttgaata ctaagagaag tttgatgctt gatgattgtt ttgagatctg gaggtagtga 300  
 tattaaagtt gtgctagtgt agtagttgtg aatttgagaa atacttgtgt tgaagtttgc 360  
 aagtcncgta gcatgcacgt atggtaaag ttatgtaaca aa 402

<210> 5209  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-F11  
 <400> 5209

ggtcgacggg gataggcact cctggcacac acgctcggca aaatgaggtc gtgtgacgacg 60  
 ggcgagcgat caaatatggt tagacataca attgtgctaa aaaatacaat tatacatgcc 120  
 aaatcgtttc tggtcgtaag tacatccac atactcagtc ccggctaaac gtttctttta 180  
 gtatgtacat tccacacagt cagtccaagg aatacgtttt cgttagtatg tacatccctt 240  
 acagttaatc caagaagtac gtttctgttc gtatatacat cccacacagt cactccaagg 300  
 aaaacgttcg ttcgcaagta catcacacac aattttcccc attaaattgt ttgtgatagc 360  
 attgccattg cacatgatat taacaatttt atccttt 397



<210> 5210  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-F2  
  
 <400> 5210

gtaccggtcc agaattcncg ggtcgacggg gaggttgaca cgctgaatgg ccggacactg 60  
 acctggctaa atcctcgcg gacatcttc accagggagt cctgcttcca cctgtctggg 120  
 gatccacga ggaaattgaa cccgacgcac taccggcatc caacgtttta caccaagggtg 180  
 tttaacgaat gccactccta tgaccaagat gggaattcct ttgagctctc cctggtaaca 240  
 tccaagtgca ttggacccta tcttacaagc acgaagatcc ctaactagat attttcgcta 300  
 taggagaacg tcacgtgcac ataacacaaa tgccttcaca cattcctgta caatgtccac 360  
 tacaagtcca ctggaatcct accttat 387

<210> 5211  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-F4  
  
 <400> 5211

gtaccggtcc agaattccc ggtcgacggg gaagtttaat acttgatgat cattttgaga 60  
 tatgacgatg gtgatattag agttgtgcta gttgagtaat tgtgaatttg agaaatattg 120  
 tgttgaagtt tgcaaatcct gtagcatgca catatggtaa acgttgtgtg acaaatttga 180  
 cgcattgagt gtttctttga ttgtcctcct tatgagtggc ggtcggggac aagctatggg 240  
 cttttcctac caatcgatcc ccctaggagc atgcgcgtag tgcttggttt ttgatgactt 300  
 gtagactttt gcaataagta agttagttcc ttaggactaa tggtgagtcc atggattata 360  
 cgcacttttg ccttccatca ttg 383

<210> 5212  
 <211> 416  
 <212> DNA



<223> unsure at all n locations  
<223> Clone ID: LIB104-013-Q1-E1-F7

<400> 5214

taccggtccg tacattcncg ggtcgacggg ctaccgtcat gctaagcaca tgagatgtaa 60  
aacatgataa acatcacatg caatcaaata gtgacatgat atggccaata tcattttgct 120  
cctttgatct ccatcttcgg ggcgctatga tcatcctcgt caccggcatg acaccatgat 180  
gtccatcatc gtgtcttcat gaagttgtca caccaatgaa tacctctacg tacatggcta 240  
acgtgttttag caataaagta tagtaattta catggcggtta ttgatgaca cgcaggtcat 300  
acacgaatta acacaattcc tatggctcct gcctgttgtc atactcatcg acatgc 356

<210> 5215  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-F8

<400> 5215

taccggtcca gaattcccg gtcgacgggg ccctcgacct ctccatcgag aggctccagg 60  
agatccagga cgagctcgag aaggttaatg aagaagcaag tgataagggtt ttggagggtt 120  
agcagaagta cagtgagatt cgcagacctg tctatcttcg gaggtgtgac atcatcaaaa 180  
caattccaga cttttggctg acagcgtttc taagtcatcc tcttctcagt gagcttttga 240  
ctgaagagga tcaaaagatg ttcaagtact tggaatctgt tgatgttgat gattctaaag 300  
atgtcaagtc aggtactcc atcactctta acttctctga gaatccgtac tttgaagaca 360  
gaaag 365

<210> 5216  
<211> 331  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-G4

<400> 5216

tacgggtcatg aattcacggt tcgacgggat gtagacagct tcggcgatgg aagtcaggat 60  
tatggggaga ttagtacgat aatcatgact ttgatgcatg gataagctag ctacatgcgt 120

gcgtgagttg gttagtctat gcatggcgtg agttagctgg tgaagttggt agctacgtgc 180  
atgcatcgca tggatatggg tgcattgtgt tgagatattc taggaggtga gtgtccgtgt 240  
gtgtacatgg atagagtttg ttagactcca agaaaaacga ggtacgtagt aggaggtggg 300  
gatgggaaag cggccgctct atggggatcc a 331

<210> 5217  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-013-Q1-E1-G5  
<400> 5217

tacggtccta gaattcccggt gtcgacacac ctagccggaa ggtctatcat tgtagtatct 60  
tgactgagca atttgacat cttctccatg aggattttga gtgacttatt ctagaagttg 120  
ttccttatgg atcccttgta ttccgaagcc cgacctttac ttgatggcta tgttgacgct 180  
tttaagcatg atcgcggtat ctgtacatc aaggagaaca ttagaagtgg agtgctaagt 240  
gtctctcggt cgatcatcca gatttttttc cttggcctcg ctaaggtgaa atctgagaaa 300  
gtgttgcttt cctttgcggc tgcattctcc atcgttattc atcattgtag tatctatttg 360  
tatcaacatt cttggcttag atgttggtgaa accttgatga atatggagtt cctcaagttc 420  
ttgagagcac acgcatgcac taagt 445

<210> 5218  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-013-Q1-E1-G6  
<400> 5218

acgggtccaga attcccgggt cgacggggcag aatccaaacg gaatgaaacc ttcgtgagag 60  
ttatttttgg aacaaacgca atccaggaga cttggagtgg atgtcaggtg aagctcgcgg 120  
tggttgtcaa ggtgatgggt cgacgggggt cgaggggtca ggtgacccag gtgagagtca 180  
agttccttga tgaccagaac cgtctcatca tgangaacgt caagggggccc gtccgtgagg 240

gcgacatcct caccctgctc gagtccgagc gggaagccag gaggctgcgc taagaaattt 300  
 cttcctttat acctgtctgt ctttgaaga agaatgatgt actgttgccct tcttactcta 360  
 acgctttcgt tctttgcta gctatgtgga agtghtaatga 400

<210> 5219  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-G7  
 <400> 5219

taccggtcct acattcccgg gtcgacgggg gcaccatacc agggactgtg tccgacaagg 60  
 agtggttgat ggctacggag caaaggttcc aagcctggcc tcgcgtcacc tgcccgccgg 120  
 tcagcatgaa cctcatcagc cgccagaact tcattgtcaa agacctcaac ccctgaggac 180  
 caagactctt gaagtttgcg gtcggttgga acctttacac tgatggcgat gcctgttgct 240  
 aaatctacct atatgtgctg gctgtactct cgaggctatt ttgtctgtct caataattaa 300  
 cacaacacta ttgtgtaagg cgccgtggct atatttcttc tgaacaacac aataaacct 360  
 gaagcacatt tgctttggac tttttgtcat cttttgtttg cataaacata t 411

<210> 5220  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-G8  
 <400> 5220

gtaccggtct agaattcccg ggtcgacggg ggagcaaagt taggtgccaa tgctggtcct 60  
 ggtggcggtg ctggtgctgg tgctggtgct ggtgcgaatg ggggcgctaa cattggagct 120  
 ggcattggag caaatgtagg tgccaatgcc ggtcttggtg tcggtgcaca taaaggattt 180  
 ggtgctgggtg ctggtcttgg agcaaatgta cgtattggag caaatgtagg tgccaatgat 240  
 ggtcttggtg gcggtgcaaa cggtgggtgct ggtgttggtg cgaatggagg cgctaacgtt 300  
 ggatttggca ttggagcaaa tgtaggtgcc aatgccggtc ttggtgtcgg tgcacataaa 360  
 ggtattgggtg ttggtgggtgt ttt 383

<210> 5221  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-H1  
 <400> 5221

acgctgacgg taccgggtcca gaattcccgg gtcgacgggg agcacaagaa ggcggaggag 60  
 cacaagaaga aggacgggga gcacaagaag gacggcgagc acaaggaggg catgatggag 120  
 aagatcaagg agaagctcca catgggtggc ggcagcgacg agcacaagaa ggacgaggag 180  
 cacaagaagg cggaggagca caagaagaag gacgggggagc acaagaagga cggcgagcac 240  
 aaggagggca tgatggagaa gatcaaggac aagatcagcg gcgacggcca cggcgacggc 300  
 aagaaggacg gcgaccacaa ggagaagaag gacaagaaga agatgaagga caagaagcac 360  
 ggcgagggcc acaaggacga cgactgccac ggcagcagca gcagccacag cgacagccac 420  
 tgagccagct ccggc 435

<210> 5222  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-H11  
 <400> 5222

attcacgggt cgacgggcaa gtgcaaaatt ggaatcccgg caactcaggg taccaccag 60  
 ctccaggcaa gtatccagcc aataggttct cacctcaaca aaagcagtca cggcgacatc 120  
 aggggggcttc tccgcccctc cggcaccgcc gcctcatgag atgcacctt cacaccagat 180  
 gccacctgct catcatggaa atgagatgca tccttcacac cagatgccac ctgctcatca 240  
 tggaaatgag atgcacctc cacaccagat gccacctgct catcatggaa atcagcagag 300  
 accggcaagt ggtgcccctg gaactggcca accacctccg tattaccacc attaagtgtg 360  
 tgtgtacctt cgccgccatt tctgattagt ttatggagtt ttgccactcc aacantacgg 420  
 ctaccccat 429

<210> 5223  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-H3  
  
 <400> 5223  
  
 gtaccggtcc agaattcccg ggccgacgcc ctggttcaaa cccgcccttt cttgcgcctg 60  
 gcatgtggcg gcgaggaact ggggacacca taccgggaca catccggcga gtggtgtcgg 120  
 caccaggacg atgattccga agatcttgag ccctggcagt tggacggtga gccggtatcc 180  
 gacgcggaaa ccaccaatga ggagtaatgc agcaacttgg ccctatgctg ccgtgtgcc 240  
 tgtttgcttg cccagaatg atcgaaacag ctctcatcag tcgtgtgttg gtctcttggt 300  
 gtattaccgg ataagctata tttcttgcc gttatcttcc ctcatgtgcc cgttccgtgt 360  
 gcatatggca tcctgtttgt tgttacattg tgctatatag gctgtagtat tcagattctg 420  
 gatgttattt atggaaacat ttgc 444

<210> 5224  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-H5  
  
 <400> 5224  
  
 tacgggtccag aattcccggtg tcgacggggt atcaaaacca tccgaagcag ttgagtgggtg 60  
 ggcagtacca cgtatttacc actagtttat gtaaactga ccagaagggt cataagagag 120  
 ctgtcaattc tgttgagtcg gcgattcctc attatttgag gtggtcagaa cageccatca 180  
 tatggagcaa agaggatcac cctccacggg tcgataatgc gggtcagtta gccttgggtgg 240  
 tagcacccca ggttgggtga tataaatcca ctaagggtgct catggacggc ggtagcagca 300  
 tcaacatcct ctactatcaa acttttcagc gtatgggggt aactgataaa aatctgagga 360  
 catccaacac agttttcaat ggagtggtn ctggtaag 398

<210> 5225  
 <211> 443  
 <212> DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-013-Q1-E1-H6

<400>      5225

```
taccggctcct acattcncgg gtccacgggt tataatctatt agagcacggg ggtgggttta 60
ttttatagaa ataattgatc tctcatgctt cacttatatt attttgagag tccttttagaa 120
caacatggca atttactttt aggcataata aaaacttcca tataagtgca ttgaatacta 180
tgagaagttt ggtacttgat aattgttttg agatatggag atggtgatat tagagtcatg 240
ctagttgagt agttgtgaat ttgagaaata cttgtgttga agtttgtgat tcccgtagca 300
tgcacgtatg gtgaaccatt atgtgatgaa gtcagagcat gatttattta tttattgcct 360
tccttatgag tggcggttgg ggacgagcga tgggtctttc ctaccaatct atcgccctat 420
gagcatgcgc atagtacttt ttt 443
```

<210>      5226

<211>      376

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-013-Q1-E1-H7

<400>      5226

```
taccggtcca gaattcccgg gtcgacagca gtatttaatc gttgatgatg gcttatgtgt 60
gtataccctc aaatttacat ggcgatatgg tttattccct tcccttttat ttccgggtct 120
atggttttat attgagtgac gcggtacaaa atcatcatgc tttttttata taacttactt 180
tacttttagta agatctacgc accatgtttc actttggccg aaatcgatgt caacagatgc 240
ctctcgaggt ctgaatgcga atgttattct ctaattcgga ttcaaaaactc gagagtacat 300
gtatcttata tttacgtgcc tcagacatat ggcttggcgc tggaagtgta tgcattgcat 360
atcaaaatag cgtct 376
```

<210>      5227

<211>      294

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-014-Q1-E1-A1



<400> 5227

gggtcgacgg gaggattggt tgccactaat tttggagcgg atgtggctgt ttcactgtgt 60  
tttttttttc ttttctttta gttggcggtg gctgaaggac gacagagttt cgtccgcca 120  
cctaaattgc ttagcgtaca acgtgagggg tacttttatg tttcacggt tagatcccat 180  
tgagtaggct tatcttgacc ctccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaaag caaa 294

<210> 5228

<211> 271

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-A11

<400> 5228

tagtgagtcg tattatgggc tatgcaata tgcagtcctg cggatcaaat attggtgacg 60  
gcaccaatg caaggtctac aacggcaagt atggtgatca cattgtggcc aatagagttc 120  
tcaatagtgt tggtagcgtc gaagaattgg taacacttga tgatcgcgtc aaccgagacc 180  
tagataggat ttgtcaagtc atgcatcaca agcttgctga gttcaatgac tcatgcaaag 240  
atccatgcat cgtcaatgca actgatctgc t 271

<210> 5229

<211> 395

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-014-Q1-E1-B12

<400> 5229

attcgcgggt cgacggggtc acatatttcg tgagtctctg ctctgaccg cactaccaac 60  
acactaacgg tttggatagt tgatccgagg gggcctctag cctgatagca ctaaccatca 120  
cgtgggcata gtatgggctg tctgcgtcgt atgcatcagc cgaagcttag tagacgttag 180  
ggactgagcg acgcgcgccg ggttgactg gtaagcacct tcctttttga aggaggtagc 240  
taggtctgct caccggccgc gtacgcaacg tgtaggtgtt cctggggcga tggcccatga 300

cccttggggg cataggttta gtccggcgtg ctgacctctc tattaagcct aggtctgggt 360  
gtggcgctant gtttgggcca ggccgggcat gacct 395

<210> 5230  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-B6  
  
<400> 5230

gtaccgatca agaattcgcg ggtcgacggg atcgcttagc aagtgggcca aacatatgat 60  
gaatataata cctaaaatgc acaactttga tgtgccacac atgootcaaa caccgtaaac 120  
ccatgtactc acatagagca aggttacata tgatgggtccc cttccccctc ctcgacgcat 180  
actatatgct cctaccataa tacaacccaa aaagaatctt catcgatggg gaaattaatt 240  
aacctctcct gatgtaggtc aaagtgatgc acatgcatca acgatggcct cttggggcca 300  
cagatggaag tgtcacacgt gaatgtccta gctaggataa ccaccgcctg catgcaagtg 360  
gcgcaaagag gtgttgtgtg atgtttgaat agccattttc acaattttga tgtggcacgt 420  
gcctcggaaa ccgaaaagtc ccgacac 447

<210> 5231  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-B8  
  
<400> 5231

gtaccgatca agaattcccg ggtcgacggg gatgtggatt tatgttttaa ttagtgtttg 60  
ttccaagtag aacctttggg aagacttggg tgaagtctat gcgatcttgc tgtaaaaagc 120  
agaaagtttt gcgctcacga gattagctac catattttac tggagagtga ttttaggttg 180  
atcctttttg catatgattt atagacaaat taccaggtc caacaatttg tttcagaatt 240  
tttggagtta cagaaatatt ctaatgatac agattactac agactgttca gtttttgaca 300  
gattctgttt tctatgtgtt gtttgcttat tttgatgaat ctatgagtaa tatcagaggg 360  
tatgaaacat agattagttg gaatacagta gatatgacac caatattaat tttaaatgag 420

ttcatgac

428

<210> 5232

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C10

<400> 5232

aattcgcggg tcgacgggac cgattacgga tccccacctt tatcaatact tcatatatac 60

tcgcaatatt cagattgctt ttatcatatt cttgcttggt cttcgattgc ttgcaggaat 120

agaccttcgt ggtcagggtg attgtgctcc ggcattggta ataacctctc ggagttgggt 180

tagcgattgc taaggcgcaa cgtcgtgcac gttttagtgc ggatcgtcaa agtcgtctcc 240

accaaatacga tagttatcat ctcatcgaaa gatcgggaca cccccgcctc tatcaagtgg 300

tatcagtttt caggttgctc ggtgagaatt tccagttttc ctagattaga tttattttct 360

tacctattgt ccatgaaaaa gccacataaa agagtttagat ctattcatcc ttgggtccaag 420

ccagtctgag cctgtgc 437

<210> 5233

<211> 384

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C11

<400> 5233

ggtcgacggg ggtagaaatg attgataagg agccaaacag gagcttcgta gttgagaagg 60

gtcgtggcac tcctttaaaag gatataccaa gtgtggcaca gaggttaacg aggaagaaac 120

ctgctgatcg taaatttctt cacaatgttc tttttgggag gaaaggcaag actgtcgatt 180

ttaaaggcca tatacttcag ttctctggat ttgtgtggca tgagagcgat gaaaagcaga 240

gagccaaggc aaaggagaag cttgacaagt gtatgaaaga catgctggtg gatctctgtt 300

ggcttcgtgc tattccggtt cccaaaacaa acatcagaaa ggaagatata gtggcaaagc 360

tgttggactt cattgctgaa cctc 384

<210> 5234

<211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-C5  
  
 <400> 5234  
  
 gtaccgatca agaattcgcg ggtcgacggg ggatgatgat gataaggcct gaaaagccat 60  
 tctggatatgg tagtgtcgat tgtattgtct acatttttta tataccatta cttgtgcaag 120  
 atactatcat gtgaccaata aacattgggt tagttgcgct gcttatgtta tggatacgtg 180  
 tgtaaaactca agtttgatgt tataaagtgg catttggtta tgcataaaaa gacaaaaatt 240  
 taaaacgagt gtaaaaattg aacataacac aatcagaaga aaataaaagc gacaaaaaaa 300  
 tttgaaaagt ttgaaataaa acggggccgc ccaaagggtt caagccttag ttacccttaa 360  
 atgcaattta aaacctctcc aaaaggcccc ccaaatttca ttccaggggc cttcttt 417

<210> 5235  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-C6  
  
 <400> 5235  
  
 attcgcgggt cgacggggga ccgcaacgcc gcgaggacgg cggagcaggc agagcacatc 60  
 aggagaaccg ggaggatgcc gccctcgctg ggctgctgga actggtgctc gtagtcgtag 120  
 acctggaaaa accagcatgc gttgctcctg tcaactaggg aatggaatgg atctggcacc 180  
 gtagaatctt ctttcttctc ttttgattgg ttcagtagat atgtggcacg agaacagacc 240  
 gcctgtaagt tgtaactatg tgtatgtaag ttgcgagctt tcttgcttg tctcatgttt 300  
 cttgcattct tcagtgatgc tgagatttct gttcagatcc gtatgtacat tacagacagt 360  
 gatttgcttc caaaaaataa taaatgatgt atgttttcaa a 401

<210> 5236  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-C7

<400> 5236

gtaccgatct agaattcgcg ggtcgacggg gaatcccaaa gaaagatttt tcttttctga 60  
attataatta ttcagtcaat tcaaataagg cgtatcttgt tcaagccaat aaatatagct 120  
ggggttatag ttaaagcagc cagtagaaaa ccaaaataac tagttaaagt aagcatgaaa 180  
gagttaaatt ccatttattt tttttttact acactacata tgttggtaaa gcattttacct 240  
aagttatgga aaattcataa ttcattcagtt attttagata atactaaaaa acaagataga 300  
gtaagataca gaagtgtaaa agaaagtgga ttcattcagat gatacatgag tccctaattc 360  
cgaatcaaga gatttggtgt ggaatttggtc aattgagtaa agtaataata ttaagaact 419

<210> 5237

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C8

<400> 5237

taccgatcta gaattcgcg gtcgacggg actctcagaa gtttgcaaga gcccataaat 60  
catcgacttg gaacatgctt gtctgatgcc attccaactc cggcattttc aaagtccaaa 120  
ctgtgactgt gaaaccagat ttcttcatgc ttccaaaaaa gccattatcg atgtcaacaa 180  
agttaacaat acctttgcat acaccaacag ttctatatgc ctcagggtat acacgaccat 240  
aagagagatc atcgagctca gtccaaattt ctatccctgg aagctggatg aaacggagct 300  
ctagattttc accagcagaa agcacgttgc aggacaataa gccgcgggtg taatccaccc 360  
agtatattgt accatctgga taggagaata cctgatctgt ctcccat 407

<210> 5238

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C9

<400> 5238

attcgcggt cgacgggaag gtggggaagc tgatgctggc gctgtccgat ctgctctggg 60  
aggacatgaa gtccgggccg gacagggtcg ccgttcata caagtgatcc aggggagggg 120

aacgctagag agatggcgtg tgcattgcga agcacgggca cgttcgtgcg tgtacaagat 180  
 agtgtgtgag ccgagccgca atttgttgcc cgtactgttt gtcacttgac ttgtcaagcc 240  
 ctgtataact gtggtatgtg tgtgccggat ggatgactca ccatataaat aatactacga 300  
 tcttgggtca aaaaagaaaa aacaataaga aaaattttga agaaaaataa caatacaact 360  
 gttatcaaaa agcggccgct ctaaaggatc caagcttac 399

<210> 5239  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-D10

<400> 5239

attcgcgggt cgacgaggcc accaatgacg acaactccgt cgtcgccctc caccgagaca 60  
 ccatggagag gctccagctc ttccgcggcg acaccgtcct tctcaagggt aaaaagagga 120  
 aggacaccat ctgcattgtt cttgctgatg acacatgtga ggagcccaaa gtcacaatga 180  
 aaaaaactgt cacgaaaaac ttgagagtgt gacatggtga tatggtgtct gtgtaacaaa 240  
 gccccatat gtaatatagg aaacgcgtgt acatacatcc catagaggag acactttaaa 300  
 ggggatcacg ggacatttgt tacacccttt ctaaacata cattccttta acccaaagcc 360  
 ccttttgaaa ag 372

<210> 5240  
 <211> 96  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-D12

<400> 5240

tacaccctat agtgagtcgt attacatggt ctgccaccac gacaccctgg ataggctcca 60  
 gatcttacgc ggttaaaccg tcaactctca cgttac 96

<210> 5241  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-D3

<400> 5241

gggtcgaccg ggaccgcaat gcacgacagc catctcttcc gtgcggttca aacctcaaat 60  
tccaaccccc ttctccccca aattaaggag gaccaccccg aaccggaccc ccaaaacttc 120  
aaacccttcg tctcaacctc ggaccaaaaa tggggccaac ttcaacaaac ctgttcagcc 180  
gcctctttgc caaaaaggaa atgaggattc ccatggttgg tcttgatgcc gctggtaaaa 240  
acaccatcct ctacaagctc aagctcggag agatcgtcac caccatccca accatcggat 300  
ttaacgtcga aactgttgaa tacaagaaca tcagcttcac tg 342

<210> 5242

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-D5

<400> 5242

aattcgcggg togacgggag gcaattaatg taatatcttg tgagggaatg gagaggatgg 60  
agaggccaga gacctacaag cagtggcagg tgcggaatca gagagctggg ttcaagcagc 120  
tcccgtcga ccaggaaatc atgaagcgtg cacgggagaa agtgaagtgc taccacaaga 180  
atttcatcat cgacgaggac aacgggtggt tactacaagg atggaagggg cgtatcctgt 240  
acgcgctctc aacatggaag gcgaaccccc aattctagct tctgtaaattg gtgacctgtt 300  
catatcttttg gactctagag ctgattggtc ctggccaaca acccattagt agatgatgaa 360  
cctgattact ctctgtagc atctgcctgt tgtatgtgct gcccatgca 409

<210> 5243

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-D6

<400> 5243

attcgcgggg cgacggggag agacaaggct gcatccactg tcgtttactt ggcttatcaa 60  
actacagagt tgagagaaca tatgaaagag gcgcgtggcc cagcgggaacc ccacaatgta 120

ctccccattg gcttcggctt ccgccaagg cgccatgtga agcgaggccc catccccggc 180  
tctgttcttg tcaggcacta tcttcgtaag aggaggatgc ttgcttcttc gatatcaagt 240  
cactgtgaag ggtcaagttc tgaatcgtaa attaaggcaa aagaatggat ggtggatctt 300  
gttgattcat gtttgaagc tggtaacggc catcaagggt atccacttca atatgtttgt 360  
actccaatgg tacacaaagg tgctcctggt gatccattct cgcgaggtaa tcttggtaca 420  
ttc 423

<210> 5244  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-014-Q1-E1-D8  
<400> 5244

taccgatcaa gaattcgcg gtcgacgggc attgcaatac cgtttacgct cttttttatc 60  
gcttgttacc ttgctgtttt tatattttca gattacaaaa acctatatct accatccata 120  
ttgcacttgt atcaccatct ctgcgccgaa ctagtgcacc tatacaattt accattgtat 180  
tggtgtgtgt ggggacacaa gagactcttt gctatttgggt tgcagggttg tttgaaagag 240  
accatcttta tctacgcct cccacagatt gataaacctt aggtcatcca cttgagggaa 300  
atttgcctacc gtctacaaa cctctacact tggaagccca acaacgtota caagaagaag 360  
tttacgtagt agacatcaca ccaccggatc gttgaagctc tgccgagggt gcaatgaaac 420  
gttgtcgccg atggacttcg cctggggg 448

<210> 5245  
<211> 337  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-014-Q1-E1-E10  
<400> 5245

tatagtgagt cgtattagcg atgctggtgt gaccttctac tcgcggggaa gaagatcaga 60  
tgctccaga gatggctcca tgggtacggc tccgctatga tggactgttc catcattgga 120  
gcagctcgat tgatgtgtat gacggcgagg atgaatcatg acacgacaga taacattaat 180



ctgaagtggg agtctaatag catgtgaata gatgatgtac aatacatcac caaaaagtgc 240  
tagatgtgca atgcatcaac cacgccatgg ccgctctgac tgatgcagta aatactgttg 300  
actcagaact taattgaaga aactgaactt tacagtc 337

<210> 5246  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-E11  
  
<400> 5246

taccgatcca gaattcgcgg gtcgacgggc agatataaat cccaagtgac tcaaagaata 60  
gagctatgct ccccggaac ggccagaa attagtcttg ataaccaca agttagggg 120  
atcacaacag ctttcgagg tagagtattc aaccgaatt tattgatttg acacaagggg 180  
agccaaagaa tattctcaag tattagcaga tgagttgtca attcaaccac acctggaaac 240  
ttagtatctg caataaagtg ttagtagca aagtaatttg atagtggcgg tagcggcaac 300  
aaaactaat acagcaaaaa taatgttttt ggtattttgt agtgattata gcagtagcag 360  
cgggaaagta aacaagcgag aaccagtata tggaaaactc gtaaggcacg gatcagtgat 420  
ggataaatat gccggatg 438

<210> 5247  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-014-Q1-E1-E12  
  
<400> 5247

attcgcgggt cgacgggaac atctactccc actgaaagcg catcgccgga aattctgaaa 60  
taaattccagg cataatgcga gcgccaggat ttgaatcctg gtgggttggg gataccactg 120  
tccacctaac caactcaacc acaggttgat tcgccaaaac tttttctttt gcgggtata 180  
gcttcatagc ttaggttccg tatattggat tgcgtgtcgc acgtggcgta cgtatggtag 240  
ggacgtattt aaccaggatc taatcgacct ttactttccc tataaaaaat ggcctttact 300  
gtaagggaag gagaacatac accatgcac aggcatgaac attgcaaagc aaaacgttca 360

agtgccatgc gcgcagaagc tttgttctan ggcattgacat atcacgccta tttctctcttc 420  
tccgcatg 428

<210> 5248  
<211> 195  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-E2  
  
<400> 5248

aagcgaccga gttagaagtt gtcaatatgc attgtcgtat cgcgacctga atgaaataga 60  
cgaaataatg ctcatgttcg aaagaatgtg tgagagtaga ctttacgcaa aacggccgct 120  
ctaaaagatt taagcatagg tatgcgtgct atcgagatca tagctcttct atactgtcac 180  
ctagattgag ttcatt 195

<210> 5249  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-014-Q1-E1-E4  
  
<400> 5249

gggtcgacgg ggataactaat tcatgaagag tggtatccta tggaccattt gtttcatctt 60  
gcttgcaaag ctgaacagga aataaaacga cgtgttgaggc acgaggagaa caagcgacag 120  
gtgcacattc caagagttga tatgattgta aatcatcaaa gcgatactat gacaaccaca 180  
tccgttggtg tcaggactac atcacctcca ccatgtgaca catcgcccc gagagtggct 240  
acatcatctg agttgatcat aagaggtaat gacaaaggta ctgatcttcc atctctacat 300  
gagaatgatg aatgccttgt caatttgaat gcaccatctg atgagctacc cactactttg 360  
atcacaccac ctattttaga ggactacgtt gataatttga ctttgccatg tgatcanaca 420  
actg 424

<210> 5250  
<211> 416  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-014-Q1-E1-E5

<400>       5250

taccgatcaa caattcccgg gtcgacggga gctagcagtg gcgctagggt ggtgggtggcg   60  
gagaggtgtc accgtcgggg ggatctcggg tctcctggag tgaacaacga acaaatagtc   120  
gtgttctgga ctgaattagg acttccaagg ctgttttttc cctgcagaac aaggaacaga   180  
agttaacatc tgacgatttt atattggctt tgccaagtga acaatcaatc aggcgacaga   240  
ctctacaaat attccgtggg ttcacacagg aaagttcaga aatttcagag aaacgacttc   300  
agattcagac tcagagttga atgtaggctg gagattcagg atcatagcca gatagcctcc   360  
acagcaatca atcccggcat cgcaagcttc ggcaaagata gtatggcatt tcagac       416

<210>       5251

<211>       406

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-014-Q1-E1-E7

<400>       5251

aattcgcggg tcgacgggag tgtccgacgt acaaccggac acattgatgg gtcttctaga   60  
gcaagcggct atctcagagg cacatcgtag cttaatgggt acggtgggtg agaggatttc   120  
atccgcaaaa agcggggtga atgaagcttt tacgagcctg ctaagaggct ttgaggtagc   180  
caaagtaata tatatatata tatatttgac tgtaccgcat acgcaagggt tgctctgtat   240  
agatagtatc ccctgagact ctgggtgccg tccaaacatg gcgaacaaag gatcatagtc   300  
tcacgtaatg ataccgttgt tttcgtgcgc aggcagctgc aaatccggcg actgaccgaa   360  
ctgccgaatt tgctgaattg aggcggcaac ttgacatggc ggacgc               406

<210>       5252

<211>       302

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-014-Q1-E1-E8

<400>       5252

gacgggtcta gtgattcact tatactcttt agagcacggt ggtgtcttaa ttttgaagaa 60  
 atttctagtc tctcatgctt cacttatatc attttgagag tcgttttagac cagcatggtc 120  
 tgtgctatga tcataaagtt ggtcctggaa tgacgagcat ccgagttggg tctgggaaaa 180  
 acttgcatgt gaagtgtgtt ggcacctagg atcagtttga tctttcgaca attgtcgtga 240  
 gtaagagaag tgctgccatg aatgtcctgc caattgggtg cacagcctga atggcaaagg 300  
 gg 302

<210> 5253  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-E9

<400> 5253

attcgcggtt cgacggggca tgtcagacgt ttatttcaac tagataatac accgcacgtt 60  
 gttgcgggaa ttggttgcta tatacgtaga gatgatactt ttggttcaaa ttattttagt 120  
 gggcattttt tgtatgaaac attagtattt agactaacia tatgtgaatt gaaactaaca 180  
 tatagtatta tattcgctta ttctgtagta tgcattggtc attttaatgt gggctctttc 240  
 tcatgaatgc atagtggcac gatgtggcat atttgcattt taagagaatt aaagatagtg 300  
 gggatcaatt acttaggtca tgcttgggtg catgatgagc tgacatagtt gcatgttgag 360  
 ggaattagag ttagtgagga tcaactattt aggtttataa aatgggtgtt tcctgaaaa 419

<210> 5254  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-014-Q1-E1-F1

<400> 5254

ggtccagaaa tcccgggtcg acgggaagca ggacaagggc gacaccgagg aggcgcagag 60  
 cgaatgcaat ggcgatggcg cggcgcttgg gcagctgtcc tcgcccgcca cagtcgatec 120  
 caagtgggtc aagaggatcc ttgcaaactc gcagtcggca cagcgggtcac gcgtgcgcaa 180  
 gctgcagtac atctcggagc ttgagcgcag cgtcacgtcg ctccagacgg aggtgtcggc 240

attgtcccccg cgtgtggcat tctcgcacca ccaacgctca ctgctgacgc tggggaacag 300  
ccacctcaag cagcgcattg cggcgcctgc gcgggacaag atcttcaaag atgctcatca 360  
ggaggcactg aagaaggaga tagagaggct gaggcanaatc ttacagcagc agagcc 416

<210> 5255  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-F11  
  
<400> 5255

gtaccgatcc agaattcgcg ggtcgacggg agatgcgccca tgctttcagg aatggagggga 60  
gtaagtttca ttactgttga attggattgt atcgagtga attcagagat ccatgccaaa 120  
agtaaggaac ctatgagaaa gaagtcaccc aaagggttac cagtcagcac catggatgtt 180  
gggctagcca gcctgggttt gatcatcagc tctatcttaa tttgattgat acctaggtcc 240  
tccaacgcat cactcttttt ttcatgttaa acgtatgagt gatgaataat agtgcctatt 300  
tgttcatcgc ttactatgcc tgtgttaa atagtgccggg ttggctactg cattttatga 360  
ttattgtagt tatccacatg aaagtgtctg tgcttttaata tataatt 407

<210> 5256  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-F6  
  
<400> 5256

taccagtcta gaattcccgg gtcgacgggg aggttgagaa gctgattggc aggatagtga 60  
agtggctgaa gcccggtggg catattttca tcagggaatc gtgcttcac cagtctgggg 120  
attccaagag gaaagtgaac ccgacgcgct accgggagcc gaggttctac accaaggtgt 180  
ttaaggaatg cactcctat gaccaagagg ggaattcctt tgagctttct ctggtaactt 240  
ccaagtgcac tggagcttat gtgaaaagca agaagaacca gaaccagata tgttggtgt 300  
gggagaaggt caagtgcaca gaagacaaag gctttcagag attcctggac aatgtgcagt 360  
acaaatccac tgggaatctt cgttatgagc gcgtgtttgg ggagggttat gttagcaccg 420

gtggattcga gaacac

436

<210> 5257  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-014-Q1-E1-G1  
  
<400> 5257

cggtccagaa atcncgggtc gacgggcttc tttgagcaat ttgacacaaa gaaaaaatgt 60  
cacggagatt gttgctcgga caacttctcg ggcgaggaat gcaacacaaa gagccaaatc 120  
gggtggggtgt ttggcgctct tcgtgtcact gatgacctgt tgatgaggag ggcgtatattt 180  
aggaagcagc agcttgacaa caaaacaaca tcacctact ctaactgaag aggacagccg 240  
gtgtgatttg ctcttacatt gatatcgcat gcgtatgaat aatgggtccaa tggaattggg 300  
agcggagtaa gaagctcatg ttgcctttat gcatgtaata atcatgcctg cctgcatggc 360  
ccgctagctg ttgggtccaat gcttggctgc ctgcctgaac tggcgtcaat ttccaagttt 420  
gtttttgtat atataa 436

<210> 5258  
<211> 364  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-G10  
  
<400> 5258

gggtcgacgg ggtcacgcat gtgaggttca gcatacgagg cacttggcac ggtttttgct 60  
tgaacagcgt caacactgcc ttccggcacat atgtggtggt actcagaagg acctccaggg 120  
ctgatacaac aatcagaata aataaatgtc taagcatact gttctgattg tagttccata 180  
actgtaaadc tgtaactata tgggtattgtg attctgtcgc aagtagaata aagaccccgt 240  
gtatgctaca aaaaaaaaaa caaaaaaaaaa agaaagagac agattaaaac gataaaaaca 300  
aaagtagacg tcccagaaag ttcaaagtaa cgtctagatt gtaaaaaaaaa gcggccgccc 360  
taaa 364

<210> 5259  
 <211> 170  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-G4

<400> 5259

ccggggccga ccggctctgt catatctatg atagttgtgg ctatcgatgg catgtgcaaa 60  
 aggaggtaca aaaggcaaat cctgagcgga cgttctacag gatctaagct taaggcgtct 120  
 tacatcctat gtcggaggtc atcgatgctg acatcgaaat tcaattcatc 170

<210> 5260  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-G7

<400> 5260

gtaccgatca agaattcccg ggtcgacggg ggagctatat ttttattcac caacatgata 60  
 tgtgttttgc ttggagcgtc ttgtattatt tgtgtctttg tgtttttgtg tgccacaatc 120  
 atccttattg tacacacctt ttgagagagc catacatgaa ttaaaatttg atagaatact 180  
 ctatgtgctt cacttatatc ttttgagcta tgtaattttg ctctatgtgc ttcacttata 240  
 tcttttgagc tacgtagttt ttctctatgt gcttcactta tatcttttga gcgttataat 300  
 tttgctctat gtgcttcact tagatatttt agagcacggg ggtggatttg ttttaaataa 360  
 actattgatc tctcatgctt cacttaaatt attttgagag tctcttaata gcatggtaat 420  
 ttgcttaata ataatatg 438

<210> 5261  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-G9

<400> 5261

attcgcgggg cgacggggcg aggatgagga aggggtggtcg gccgaggcga atgaagacga 60

ggcggcgctcg tccaacgaga aggacatcga ggagatcaac gtggaggatg acggtagtgt 120  
cgccatcgcg gatgcctccg tgggcgtagt caccaaggag gatgacagta tcatctcggc 180  
cgatgctccg gcgatagaga aggaccagat cgacacgttc gtgcctgctc cggcagccaa 240  
ggccaacgag gatgccggtg ccaccttctt ggctgccccg gtggccggtg atgatggcag 300  
tgcttccttc gttgctgctc cggcggccaa tgaggacgaa cttgtatcca tctcgtctgc 360  
tcc 363

<210> 5262  
<211> 371  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-H1

<400> 5262

cgggtcgacg ggtctgttca acaccattgt tccgataaca acgtgctccc gttggtgttg 60  
gcaggcttct tactttaaca attccctata atcggaataa caggatcatc atgcaacaca 120  
tgagttagtc ttaaagggtga gatcaggaac ctattttgtg tttatcattc cacacatgca 180  
atatgggttt ccctctgaat ctcatgata tctcactaat atgtagacta aagaaccatt 240  
gcaattgtag gacagaaaat aaatattaat cacaacatgg aaataaataa taacatttac 300  
cattgctgtt agggcatatt taaaatataa taaatcaaca atgttgatga gatgggagag 360  
cttaaataca g 371

<210> 5263  
<211> 410  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-H5

<400> 5263

attcgcgggt cgacggggcg actcatgaca agctcgagtg gctgctcgct ctgcctcca 60  
tgaggaagga ggcaggagcg ctggataatc aaatttgatg cggcgtgca tgattttacc 120  
agcatcaatt gtttttcagt tccagaacgc tggtgactta aacatgggtt ccctcttttg 180  
cgaatgagta tgagcatgat ttctaagtgg ccgtaacatc gctagcctag atatccctgc 240



tctggatttg tatgaatacc ccagtgtcag tgtggttgta atttgggggt ttgtagctgg 300  
tcggttattc tgtctgttgg tatattggaa ttagacttta aacctgtgat gataactgaag 360  
aactgcaacg atgtgtggaa gtcattgttg tcgattgttc attaaatata 410

<210> 5264  
<211> 382  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-H6  
  
<400> 5264

gggtcgacgg ggaagaagat ggaggccctt gaacggctag gcgccgacgc gttcgttgct 60  
agcaaggatg ccgaggagat gaaggctgag atgagtacca tggatggcat cataaacacg 120  
gtgtctgcaa acatcccat ggccctctc ttggggctac tgaaacccaa cggcaagatg 180  
atcatggttg gcctcccaga gaagcctatg gagatcccc cctttgctct ggttgctacg 240  
aacaagacc cggccgggag ctgcatcggc ggcatgagg acaccagga gatgctcgac 300  
ctcgccgcca agcatgacgt gacggcggac atcgaggta ttgacgtcga gtacgtgaac 360  
acggccatgg agcgccttgc ca 382

<210> 5265  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-H7  
  
<400> 5265

aattcgcggg tcgacggggc ttccgtgcca tgccaaacat gctgatgttc cgtcctgctg 60  
atggcaagga gactgccggg gcatacaagg tggctgtcct caacaggaag aggccatcta 120  
ttctggctct ctccaggcaa aagcttctc atctgcctgg tacctcaatt gagggcgttg 180  
cgaagggttg atacactatc tctgacaact cgaccgacaa caagcctgac ttcatacataa 240  
tgagcactgg ttctgaggta gagattgctg tgaaggctgc cgaagagttg acgaaggagg 300  
ggaagactgt ccgctgttg tcatgtgtct gctgggagct ttctgacgag cagtcagatg 360  
aatacaagga gagcgtgctc cctgaggctg tcaccgcaag 400

<210> 5266  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-A1  
  
 <400> 5266

cgggtcaagaa tatcccgggt cgacggggcgg ctggaggctg cggcggacgg cgagggagtt 60  
 gcgtatgagt ttgggctctc aattggagcg gaggaaggcg gccggcgagg gagctgcggg 120  
 cggatgccgg agctgcagca gtgggggtgga gcctggcgga ggggaggagc gatggaggaa 180  
 gacgaagatc cccggcgaca agaatttcaa attgagggtg gtttgggtact ttttcctggt 240  
 ttcacctggt cggagaagtt cccaacgac aactattttg gaacagaggg agtatatggt 300  
 tctatagagt acttcgtttt tgtactatac gcttgacaaa atgatttctt tataagctg 359

<210> 5267  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-A10  
  
 <400> 5267

gacggggaac gtgctgacca tcttcgagga ggaaggcggg cggccggacg ccatcatgat 60  
 cctgacggtg aagcgcgaca acatctgcag cttcatctcg gagaccaacc ccgggcacgt 120  
 acggtcgtgg gagaccaagg acagccagct gacgatggtg gcggacgacc tgaagccgcg 180  
 ggcggtgctg acgtgcccgg agaagaagtt gatccagcag gtggtgttcg ccagctacgg 240  
 gaacccgctg gggatctgcg gcaactacac gtttggcaac tgccacacgc ccaaggccaa 300  
 ggagattgtg gagaaggcgt gcgtggggaa gaggaactgc gtgctggccg tgttccacaa 360  
 ggtgtacggc ggggacctca actgcccggg caccacgggc acgctgggcg tgcaggcaaa 420  
 gtgctcc 427

<210> 5268  
 <211> 327  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-A8

<400> 5268

gtaccgatct agaattgccg ggtcgacggg ggtggcagag gcgatctcag ccgttggatt 60  
atttcaattc ttggtgccta ttgcttaaga gagattgatc gagagataag atattgccat 120  
gtagagagat tatgctttgc tctatcactg tggcaaatgc aataatgtat cccttctgta 180  
ctatcattag gatttgaatg aatgcaataa aggatgggtgc tccttgtaaa aaaaaagaaa 240  
atgaaacaaa acaaaaatag aaaaaaaga aagtaaaaac aaagaagaaa aaagaagatg 300  
acccatcggg aaggtagcga agaatag 327

<210> 5269

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-B11

<400> 5269

ggtcaagaat taccgggtcg acgggtatgg aataaggagt ggcaagagcc tgagcttggg 60  
gatgcccaag gcacccaag atattcaaga acagccaaaa gcctaagctt ggggatgccc 120  
cgggaaggca tccccctctt cgtcttcgtt cattggtaac tttacttgga gctatatttt 180  
tattcgccac acgatatgtg ttttgcttgg agcgtcgtgt attatattag tatttgcttt 240  
ttagtttacc acaacaatcc tttctttaca caccttttgg gagaagccta ctttattaga 300  
aatttattag aatatacctag tgcttcact 329

<210> 5270

<211> 59

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-B12

<400> 5270

tagtgagtcg tattacctga gcttggggat gcccaacgaa cccaagata ttcatgatc 59

<210> 5271

<211> 320

<212> DNA



cgcacaaaggc caccatcgctc tggctccacg gcctcggcga caatggagcc agctgggtctc 180  
aactgttgga aactcttccc cttcctaata taaaatggat ttgcccact gcacctacga 240  
ggcctgtggc aatttttggg ggattcccat ctactgcatg gtttgatggt gctgatcttt 300  
cagaagattc tctgatgat gttgaggggc tggattcctc agctgcacat gttgcaaatt 360  
taatgtctac cgaaactgca gacatcaagc ttggcggttg tggctttagt atgggtgctg 420  
ctactgcgct ttactctggg acttgct 447

<210> 5274  
<211> 317  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-B9

<400> 5274

gccggtcaag aattaccggg tcgacgggag ctgtgtgcgg tgggtgcata aggagcctgt 60  
ccatctccac tagagttatc ccaagtttca cttcacatcg tgatgttggt ttaccttttt 120  
tttcttgctg tcgtcccgct gcctgctata acggacagcg ctccctgttg gcgccgccgc 180  
cggcgggggg ggtgccctgg cggcggaggg tgtatgtcct ctgccgccgg gtgctcncct 240  
gcttgtagct agatgggttg ttactctttc cgtccattgt caccggctaa cattgtgata 300  
atatcagtct gggtaat 317

<210> 5275  
<211> 242  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-C1

<400> 5275

ccggtcaaga aatcncgggt cgacggggcga gcaagtcaat tgccacataa gagatatccg 60  
catgctgggc gggaagggcc agttccgctg gcaatgtatt caaggtgacg catctctcct 120  
gcatcaccaa cgtcgactcc gttcactcga tctcagtaat tgtcattacg ttgtcaaatt 180  
tgттаататg caatgtccgc accatgtgat tgcacacgat ctgcaacaca acacctcctt 240

gt

242

<210> 5276  
<211> 331  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-C11  
  
<400> 5276

ggccaagaat acccgggctg acgggaaggt cactcagaat atggccctca agctaaagga 60  
acaccgacac gggcgaactc atcatgcacc tgagtgggtt aacctcccc caagcattcc 120  
ccggtgattt gatttgattt tcagagggaa gccagctatt gtctgccttt tgtgatcgta 180  
atgttgcttc ctctatatat gagctatgaa aataattaag cgatgcctat ctcatctttt 240  
acataacacc caccgtaatg atttgtggat ctaccagga tggcgcgtat ataatatgag 300  
caacgtcgtg gtgagattcg cagattatca c 331

<210> 5277  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-C12  
  
<400> 5277

cggccaagaa ttaccgggtc gacgggcaga cggcggcgag ggagcttcag gagcagcagg 60  
acggcatgat gtacctggac gtgaggacag aggaggagat gggcaagggc cacatccgcg 120  
gtccctcaa cgtcccctac ttcttcgtca caccacaagg ggtccgggag aagaaccccc 180  
ggttcgtgga gcaggtcggc tactcttca ccacagacca atacatactt gtcgggtgcc 240  
agagcggcaa gaggtccgag ctggcctgcy tcatctcct agcagcaggg ttcattgaatg 300  
tgaagaacgt gggaggaggc tacgctgcyt ggctgcacaa cggactctcg gttacaatgg 360  
gagtcaccaa acggccacca naacctgaat ctgctgcagc aatctgaatc aactagtagt 420  
acgtactacc ttagcatct atcaattct 449

<210> 5278  
<211> 435

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-C3  
 <400> 5278

```
ccggtccagg aatccccgggt cgacgggtct cacaacaagc atgatggttt cggtagggaa 60
cgtcccacct ttggggacga aatgatatcc attgcctcta ttgctttcaa gtttttttct 120
cgtgtcaaca tagaacaaca ggagtgttgt gtgaattttt gtgatttttc ggggttcatg 180
tggacatttt tatgcattaa ctgagttttc aatgcattta tgtgcataat tcaaatatga 240
actacatacg catgcttctg tggacataaa ttggttgaaa aatcaaactt gtgtccttgg 300
gtgcatgctt aggtcccatg caagaaatgg gaatgaattt caaacacgat ggcacccgtt 360
gattgccggc aaaacaatga gatgcctggg tttctaaatc tagtaaatca aaaactcgtc 420
taaaattcat gaaac 435
```

<210> 5279  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-C4  
 <400> 5279

```
ccggtccaga attccccgggt cgacgggtac cttatgtggt ggttttggtt tctttcacta 60
acggagctta taagatttcc tgttgagttt tgtgttgtga agttttcaag ttttgggcaa 120
agcttttatg gactatggaa taaggagtgg caagagccta agcttgggga tgcccttggc 180
acccaatct attcaaggat agccaaaatc ctaagcttgg ggatgccccg ggaaggcatc 240
ccctttttcg tctccgttca ttggtaactt tacttggagc tatattttta ttgccacat 300
gatatgtgtt ttgcttggag cgtcgtgtat tatattagta tttgcttttt agtttaccaa 360
aattatcctt gatgtataca ctttttggga gaatccatt tgattagaat ctgccagaat 420
actcctatga gcttcacttg t 441
```

<210> 5280  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-C5

<400> 5280

caggtaccga tctagaattc ccgggccgac gggggtgtta ctggagcatg gccatctttg 60  
aaggtcggat atgccctgct ttgctgctct gcttttcctc atatgatcct agtgtggagt 120  
gctcggcctt tgcaagctgt aatcttaatt tcctttgcat tagctgcttg tggagggttg 180  
agttagcgtt tcagtccagt gtttccattg tacccttctg cccgctgtaa tttgggttgt 240  
tgctgtaact cctggccggg tgatggcttt gtaattcaa agccgggctc ctctgagacc 300  
ttcgttctaa aaaaaagaaa taagtattct tagtctgtca tactatttta tagaaacccc 360  
cccgatgttt cttatattaa aaccgcgagt acataataaa tgtttttttt aaatactcgt 420  
tacctctaaa ccgtaactat aaattt 446

<210> 5281

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-C6

<400> 5281

ggtagcgatc tagaattccc gggtcgacgg ggcagtagt tcaaaatggg tactgatatt 60  
tagatacaaa tggttgaaaa aaaattgcat ggagaagggtt accttaaatt tacgtcggca 120  
aaaaattcaa cctcttctgc tttgggcact caatgcttgt tttattgcaa aagaattctt 180  
tctttcttgc atcaatctgt gttgaagtga aacactcgtt aaagtagaag cctagtctag 240  
tcataaagat aagggaactac tttaaaatga atcagattgt ccacattcaa taacaagaat 300  
gaatatcttc atttacagtc atattcaaca tacccttaag atgactaaaa tagacttggt 360  
gtaatttaca gaaaagaaat acatgagata agtcacctac ctcatctatc atttaggaga 420  
gggttagtat atgaagaaag a 441

<210> 5282

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-C7



<400> 5282

aggtaccgat ctagaattcc cgggccgacg gggctgacag cggggatgtc ggactggagc 60  
gagtgcccg agctggggcc gatcggggac ctgcttgtgt ccaaggactt ccagaccaag 120  
gcgtccgtgc tgggtggtgca gtcctatggg agggcggcgg cggcggcggc cgcgtcgacg 180  
tcttctgaat ttgctgttgg cgaggccgtc ttgccggcgc cagaggccat catgccggcg 240  
acctccatgg ggcacccgcc aatgcgcca cgacaacatt cacattctga ccttatgctt 300  
tgatagtagt atagtttggg aaagcttgct agcacattga ttaattaatt aattaattag 360  
ggagcgccta atttttgcac gggaattacg aagtgtctga tg 402

<210> 5283

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-D1

<400> 5283

cgggtccagaa atccccgggtc gacgggttgg gtcatatatt cctcaaatat gcccaaatat 60  
ttccttaacc agttcaaaaa taattcccca atattacttc ttcacttctc tccagaaggg 120  
cactttgtga aggaagtatc atttatatta ttctgtttgc tccaaacttt ttgggaattc 180  
tcttatgtcc aaatgattgc cacatgccaa aacgcaactt cattttccta ctgaatcttc 240  
cttagtgatt tttcaaagtt tcggttcaaa tagaagcttt gtgaaggaag tactagctag 300  
gagtatccaa ataagtttaa atttgcatgc ctcttcatgt gctccatccc ttgatctatg 360  
tgagcacatg accaaatctt tga 383

<210> 5284

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-D10

<400> 5284

ggtcaagaat acccgggtcg acgggacgtg acggatcgct aaacctagac aaatattgag 60  
ggaaatggag cttggaggtc aagcttggag aggagaaagc ttaagtagtg tggctcgggc 120

attccatcga acacctcgtg tgcataggat gtgagctaga gcaccacaaa gctctcccct 180  
cgccggcgac gaaaaacaga gcagtgggag tgctctgctc gcgggagagg ggtatatata 240  
gtcaactaat tgggtccggg tctgtggccag aaccgggact aaagggcaac ctttgggtccc 300  
ggttcaagcc accaaccggg accaa 325

<210> 5285  
<211> 334  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-D11  
<400> 5285

ggtcaagaat taccggggtc acgggggaac gatgagatca tggctanggg aacttttggc 60  
aacattcgta ttgtgaacaa gttcttgaag ggagagggtg gcccccaaac catccatgta 120  
ccatcagggg agaagcttgc tgtttttgat gctgctatga aatacaagaa cgaagggcat 180  
gacactatca tcctgggtgg tgctgagtat ggcagtggaa gctcaaggga ttgggctgcg 240  
aagggtccaa tgcttcaggg agtgaaggct gtgatagcca agagttttga gaggattcac 300  
cgtagcaatc tcgctggaat gggcatcgtc cctc 334

<210> 5286  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-D3  
<400> 5286

cgggtcaagaa atcccgggtc gacgggtact ccgttcttat gaacttaata ctctagatgc 60  
atgttgata gcggtcgatg tgtggagtaa tagtagtaga tgcaggcagg agtcgggtcta 120  
cttgttttgg atgtgatgoc tatatacatg atcatgccta gataacgtca taattattcg 180  
cttttctatc aactgcttga cagtaatttg ttcacccacc gtaatactta tgctctcgag 240  
agaagcctct agtgaaacct atggcccctg ggtctatctc ttaccatatt tgttttcaac 300  
ttacttttat ttgcatcttc acttttcttg atctatatta taaaatacca naaatatatt 360

tatcttatca tactatcttt ataagatctc actttcgcaa gtggccctga aagggtattga 420  
caac 424

<210> 5287  
<211> 363  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-D5  
  
<400> 5287

gtaccagtct agaattcgcg ggccgacgtg taataaaacg catgccagcg gaagtcgtcc 60  
gtacatgcgt taatttacgc cccttactgt agatgcaaaa tccagggtag gtgcgagcat 120  
aaaatgaaga gggtcacatg cgttaattta cgtttagtc tttcagtgtc acgaggcaga 180  
caccctcgtc ggttcgatct ttttcagctc caatcaggcc gccacatagg aggcgtaggc 240  
acgcaccatc cgcagcgacc gtcgagcacg agcacatgga tgtattattg gcagaaccag 300  
ctgccttggc cgtctcttga cacaactaac cctccgtcca caatatgttt tcaagcaact 360  
ttt 363

<210> 5288  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-D6  
  
<400> 5288

ggtagcgtatc tagaattcgc gggtcgacgg ggagcacaag gagggcatga tggagaagat 60  
caaggacaag atcagcggcg acggccacgg cgacggcaag aaggacggcg agcacaagga 120  
gaagaaggac aagaagaaga agaaggacaa gaagcacggc gagggccaca aggacgacga 180  
cggccacggc agcagcagca gcgacagcga cagcgactga gccagctccg gcccgcgctc 240  
cggcagcgtg cagtgtaggc gagatcgatg atgaacactt gggagaagtg tgacagacat 300  
atatgttgca gggtttgag cgtgtggtag catatgtatg taatgcgtga catgcctcat 360  
ggatcttctg atgtataata attagccggc cgcactgcac tgaacgggtg ttgtaataat 420  
aacgttaatc atgttggtat tgatgtat 448

<210> 5289  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-D7  
  
 <400> 5289

ggtaccgatc tagaattccc gggccgacgg ggagtctctt agaacagcat ggtatttgct 60  
 atgggttatga atttgggtccc agaatgatga gcatccaact tgggtataat aaaaactatc 120  
 atagaaagtg cattaaacac taggatcaat ttgggttcttg ataattgttt tgagatataa 180  
 aggtagtaat gttaagatcc atgctagtgg gtaattatga aattgataaa tacttggtgtt 240  
 gaagttggca agtcccgttg catgcacgta tggtaaaagt tgtgtgacaa atttgttgct 300  
 tgaggtgctc ttttgattgt ctcccttatg agtggcactc ggggacgagc gatgggtctt 360  
 tcctaccaat ctatccctct aggggcatg 389

<210> 5290  
 <211> 327  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-D9  
  
 <400> 5290

ggtcaagaat taccgggtcg acgggggtcat cgacacacca ctgtccgtcg ggttgattga 60  
 ttatcaagaa gggcccagct cgctcctagc ccttctgctc ttccctcgttg ttgcctctgc 120  
 cagcccccta gcatcgcccc atggtgatct tgactatggc ggtggagtga agaaatctga 180  
 agctaccggc ggatacaccg ccggtattga gaagaaaccc gaagctgtct cggccagtgc 240  
 tgagaataaa cccgaagcca tctccgtg tgtggagaag aaaccagatg ccgtctccgg 300  
 aacagacgtc tcctccagcg cggagac 327

<210> 5291  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-E10

<400> 5291

gggtcgacgg gtacttcaag ccgtggcgct tcagcttgct aaggtgggtg tggacttctt 60  
ccatgggagc aggtgatgtg ctctatagt cctatggttt gcagcgggat tggagtgggg 120  
cgatgctaca agagatatgt ttgatacatt gtcgttgctt ttatctggtt cattaccctt 180  
tatatggatg agggggacat ggattgatta cctctaatt gtggtttgtg ttggactctg 240  
gttatctcgg cgtcgcgtga tgggcgcttg cctgggtaaa aaaaagaaaa aaaaaaaaaa 300  
aaaaaaaaagc ggccgctcta aaggatccaa gc 332

<210> 5292

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-E12

<400> 5292

ggtcaagaat taccgggtcg acgggggata tcgatggcac gtctgcgtgt cctgacacga 60  
tgtcagagtc gccgccatca gaagagaagg aggagtcaca caagtctttc gagttcccc 120  
tgtccaaaga tttggctgca caatcagcag atgttgggtc tagcacgcc aagattcaga 180  
tgccgcctcg acctgctgaa gttaccactg ctgcgaccac tcgtgccaag tcaacagtga 240  
aggctgaatc gtgcactccc aacgtgcagg ggagctcatc cactcgctca aagaccgtgc 300  
aaccgtctaa tctgaagcag tcctcgctgg cattaacgaa gaagagtgtg ctaaaggggg 360  
ctctgatcc ggtggccgga aaaggcatct gctgctgcaa atgatattag gcaagaaaat 420  
caggctgtga agaagcaaaa actagatgat 450

<210> 5293

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-E2

<400> 5293

ccggtccaga aatcccggt cgacggggaa cgtgctgacc atcttcgagg aggaaggcgg 60  
gcggccggac gccatcatga tcctgacggt gaagcgcgac aacatctgca gcttcatctc 120

ggagaccaac cccgggcacg tacggtcgtg ggagaccaag gacagccagc tgacgatggt 180  
 ggcggacgac ctgaagccgc gggcgggtgct gacgtgcccg gagaagaaga tgatccagca 240  
 ggtggtgttc gccagctacg ggaaccgct ggggatctgc ggcaactaca cgcttggcaa 300  
 ctgccacacg cccaaggcca aggagattgt ggagaatgcg tgcgtgggga agaggagctg 360  
 cgtgctggcc gtgtcgcacg aagtgtacgg cggggacctc aactgcccgg gcaccac 417

<210> 5294  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-015-Q1-E1-E5

<400> 5294

aattcccggg ccgacccatc agcgtgtgac ataaattgct aggtagccgc atagctcggt 60  
 cgccttgctg caatgggtga cggatcaagg ttccatcagt tgaccagcca atcattgact 120  
 tctagaaata aaatactaaa atctgaaaaa caaaaaatca cgaaaaatgg ataaatgatt 180  
 ttgatttcaa ataatttcat ggatttgaaa aggaattcaa aaaaaaaaaat catcaatacg 240  
 aaaaaagctc atggttttgg aaaaaagttc atcaaattga aaaaacacaa aattgaaaag 300  
 gttcatgtgt ttgaaagaag ttcattgactt tgaaaaatgt tcattgattt ggcaaaattt 360  
 catgagttca aaanaagttc acttaatttt ganaataagt ttacggattt gaaaaaagtt 420  
 catcgatttg ataaaaa 436

<210> 5295  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-E7

<400> 5295

ggtaccgagt ctggaattcc cgggtcgacg ggagcatgag aaaccacaca aaattttctt 60  
 cgacacctac ctgtaactga attaatctg taagggtca tttgccttgc atgattctaa 120  
 aaacataggg atagggtcatg gaaaaacacc tgaatatgat aggaatgcac atgggaaaca 180

tcgcatttgt gaacacagga tttctgtcaa cttgggtggt tgcttcacac gaattggagg 240  
 agcagaggaa tgcacataag catggccaca ctagagtga accatatgaa agcgtgtata 300  
 tggaaaaaaa tcagcgggtca ttcacacgaa acacggccgc tcttcaggat ccaagcttac 360  
 ttactcgtgc atgctacgtc aaagctcttc gat 393

<210> 5296  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-015-Q1-E1-F10  
 <400> 5296

cgggtcgacg gggaagacgc ggcattggaa gcccgcgcg agaggagtac gagggttcac 60  
 tggttcgggt gcggtgtgag gctgccgtcg ccgcagggcc tggccagcgg tgggaatagt 120  
 angggcgggt aggcctccgc ggcagcacag ccggccatgg gaggcaggag catgcgacac 180  
 gaccggcgct gctttgggtg gctggagcaa gaagaccaga ggttgaagaa gcaactacggc 240  
 cgttgatgg acatcgtagc gtcactggag ctagaatcat tcatattgac taagttgata 300  
 aagcccttca tccccatcaa ct 322

<210> 5297  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-G12  
 <400> 5297

ggtcaagaat taccgggtcg acgggcctaa actctggctc aaaggtttct ttcaagaatc 60  
 aagagagaac attcaaggag tggattgttt ggaaattaaa accttcagat ttcttagaag 120  
 tgaggttgct ttccaactac aattatagct tcaactggat ttatgtgaat ataagcgtaa 180  
 gatgtctagt ggcaatgcta caaaatcatt gcaggcgtga ctcgtagta tccggattgc 240  
 actgctgctg gccgtttctt gcaactgcgc acaacaggct tctgacaaag ccaagtctta 300  
 gactcatgag gtcccttttt tcagccaaac tgaaagcac 339

<210> 5298  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-G4  
  
 <400> 5298

taccggtcta gaattcccg ggcgacggg tggcagtcgg ggacgagcga cagtcttttc 60  
 ctaccaatct atccccctac gagcatgcgc gtagtgcttt ggtttttgat gacttctaaa 120  
 tttttccaac aagtatatga gttcttttga ctaatgttga gtccatggat tatacgacc 180  
 ctttcacccc tccattattg ctagcctctc ttgtatcgtg caactttcgc cggtaccata 240  
 caccacccat ataccttcct caaaacagcc accataccta cctattatgg catttccata 300  
 tccattctga gatataattgc catgcaactt tccatcgctc catttattat gacacctttc 360  
 atcattgtca tattgctctt tgcatgatca tgtagttgtc atcgtatttg tggcaaagca 420  
 ccatcataat cttcatacat ttgc 444

<210> 5299  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-G7  
  
 <400> 5299

ggtaccgatc tagaattccc gggccgacgg ggcgcgttta ggaatcgccg gcataggcgt 60  
 acggaattcg agtagatgca cgcagctaac gatccgatct ggcccgaccc atttaaacag 120  
 ccagtcgctc tcggtttttag gtttgggact tttctaaaat ttcttgaaca agtttttctg 180  
 ctttacttct ttattgtttt ttatttcctt ttttcctttt tcttttccgt ttcatTTTTT 240  
 cttttttctt tttctgtttc ttttctgctt tattttttat tatttattta tttattaaca 300  
 tttcgtcttc cttttctttt ttatttctca agtccattta ttttcaaact tgaacaaaaa 360  
 tttcaatttt tctttggaat tccaaatatg ttctcgtcct caaaat 406

<210> 5300  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-015-Q1-E1-H5

<400> 5300

ggtagcggtc tagaattccc gggtagcagg ggaatagatc atcacttgaa cataagtaat 60  
catatgacaa aatctatata tgctgctgct atgagaataa tcatgatgcc ttcattgtccg 120  
tattttattt ttatcgacgc ctctacctct aaacatgaag acatattttt tgttatcggc 180  
ttttcgcttg aggacaagcg aggtctaagc ttgggggagt tgatacgtcc attttgcac 240  
atgcttttat atcgacattt attgcattat gggctgttat ttcacgggat gtcacaatac 300  
ttatggctat tctctcttat ttacaagat ttacataagg agggagaatg ccggcagctg 360  
gagttctagg ctggaaaagg agcaaatatt agagacctat tctgcgcaac tccaaaagtc 420  
ctgaaactcc acggaatatc aaaa 444

<210> 5301

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-H7

<400> 5301

gtaccggtct agaattcccg ggccgacggg cccggcgacg cggcgggtggt ctggcccgcg 60  
ggtagcggcg cggaggagga ggccggggag acggagaagg aggtgtggtc gaggttctac 120  
ggcgcgggct tctggaggag ccctcgtcgc ctccggcgacg agaacagatg atcgggacag 180  
gccggcggct cctgcatgca tgcgacgcc tggcttcttc tacggctttc ttgattcttg 240  
ctcgggtagg cttccttcgt tttcctcggg gggaaaccga ttagaggag gaaatgggaa 300  
gcttgtgtgt cgtgtttgat ccacaccgca ttcttgttcc accttgatc cgctcttttt 360  
tcttcttttc tttctggtgt acgtcttctt tgttgccatt gtatgcaact aaatgtatat 420  
accgagtaat gtgattgggg aaaa 444

<210> 5302

<211> 484

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-016-Q1-E1-A4

<400> 5302

gtaggctccg gaattcncag gtcgacgggg ttgtgactga ctttccgtcc cctggatgga 60  
tagtatgttc ttatatccaa tcattgcatg aaagttgcat gatctttgat ttcagaatta 120  
tttatttcat cttctttata gaatgttcag ttctgaactt gtgaactttc cttacgtaag 180  
cgtgctgtg caactcaatt gtaatcttag gaattttctt gttcattcta gttagcaatc 240  
atatatgaac gaagttatga ataagatgtg cacacaactt gaacatgcgg cttttcgta 300  
ttacaattgt gatcgacccc tctgtctatt attgagatgg cccgataaga tcaccaactg 360  
tagatgtcaa gacttaatac ccacaataag cgctgctagt gaaaaagatg cccataccag 420  
tacaacatag atogaagctc ttcaacaaac ataactcgat aatttcatta acattggctt 480  
acat 484

<210> 5303

<211> 477

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B5

<400> 5303

tccgaaattc ccgggtgccc gggtcacggt ggcaatggta aacgcaaggc tgagggcggt 60  
ttaaactttg tggccaacac caatacgcaa aacaatagtc agtgtcagaa ggaaaagcca 120  
ccccgacttg gcgggcccac gttcaacctt gaggcgatga tgaaccagcc ttgcccacaaag 180  
cacggtatgc aagagaagcc ggtcagtcac ctatggaagg attgcttcat cttgagggcg 240  
tatagaaact ccaatttttt ccagaacaat cacggcccga atggcggacc aggatccagc 300  
tctcacgggc ctggcttttg tggaggcggc tcaagttctg gtttccaggg ccatggcaat 360  
caagggtggt taagtcagca gtatgggttaa gggaatcaac aggagcaatc tggttattag 420  
agtaacctga agcagctaaa tagtggacca tatcatgtgt tcaccacgag tttatgc 477

<210> 5304

<211> 216

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B6

<400> 5304

gtccgaaatg tccgggtcgc cgggggtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaaaaa aaataaaaaa aaaaaaaaaa aaaccaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaccggc cgcccaaaag gatcaaacct aacttacct tgcattgcaac 180  
ttcaaacccc ttcaaaagt ccacaaaaat ccaatt 216

<210> 5305

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B7

<400> 5305

cccggtggc cggaacaat ggtacaaatt caactatgta tctgccaaag ttgattatgc 60  
ttaactctag gcattgcatt actatatcat ggtgaactat tctttgaaga attttagga 120  
ggtactagaa aagtatgact tgatgagga tgccttgatt ttaaagaaca gcctgaaaga 180  
atttagttta gtaaaatatt gtatagcctt ctcgtaaaag tttgatacac tttttcaaga 240  
aaacgaactt tggtaataca ttaagctata actttttotca tatttgaaca acaagggttat 300  
ttgagctctg ctaaaaaagt ggcaatgtta aaaaaaagg tttttgtgt aatttttgca 360  
aactttgttg aaagaagcta caaataattg atttgcgtgt caagtctaca gtccaatgtt 420  
aatctacagg gtggaatctt caaac 445

<210> 5306

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C3

<400> 5306

gtcgccggga gcggcatact gtgacttcag gtacactgtg acggtcccct cgggagaatt 60  
ctgaaatgtg cgcacgggat ccacactgcc tgcattcacac ctcgtatgcg cgtggagccc 120  
ccaggccagg tgtgcaaac gccagccgcc tagggtagga catgagccag ccatgcctat 180

gttcgtccac attgatccaa ccatggaatg gatttacacg ggctctcact caaatcccag 240  
 gtgcatgaca gctagcgaaa tagctagcta cgatcaattg atccatgcgt tagatacacg 300  
 cgtgatcaca cagttgcgca gtgccatgat catgtccggc cacaatcagg ccacatatta 360  
 tgcaacctgc tagataccta cggcattgac ctcacatata gctcgaggag cactctgtat 420  
 cacatatacc agatacactc atacatgca 449

<210> 5307  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-C5  
 <400> 5307

tccggacttc ccgggtgctc cggggacgcg gccgacaagg gcaaagggaa ggagaggcgc 60  
 agcaaggagc agaagaaact caagcagaga ggaggaaaga caggaggcag gagatttgaa 120  
 gtaaagagta aactgaagag caagagaaga tgaaaatgta tgcgcatctt tggaagagat 180  
 tttgccagtt tagttcgttt tttcggttca tggtgaaatt ttcaccggag aagaaacatg 240  
 ccttggtgcca gtgtagcttt gcgtagttta gtgcgaggcg gttttcatgt tcacacgaaa 300  
 atgaaatctt ggcgcgccat tttatcttgt gtgtcattcg aaacaaaaaa tagaagggat 360  
 cttgtgtgtc attcg 375

<210> 5308  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-C8  
 <400> 5308

ccgggtcgac ggggacagta aacttattat cacgagcga agccttaagc atggcctcga 60  
 catgctacag agcatccata gtgataacaa gagctcaaaa aaatcgctaa aggatgttgc 120  
 cacagagaac gagtttgaga aaaggcttct ggcagatgtt ataccaccga atgatattgg 180  
 agtcaccttt gatgatattg gtgcggttga gaatgtaaag gaaacattga aggagttggg 240  
 gatgctccca ctgcaaaggc cggaattgtt ctgcaaaggg cagttaacga agccttgcaa 300

gggaatattg ctcttcggcc cccctggcac tgggaaaact atgcttgcta aagcagtagc 360  
aactgaagca ggcgccaaact tcatcaatat atcaatgtca agcattacat cgaagtgggt 420  
tggcgaaggg gagaaatatg tgaatgctgt tttttca 457

<210> 5309  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-D5  
<400> 5309

tccgcacttc ccgggtggac gggtgacaag aacacgagag agagagagag agagagagag 60  
agagagagag agagatcaaa cacatagcta ctggtacata ccctcagccc cgagggtgaa 120  
ctactccctg ctcggttatgg agagcgctgg gatgatgaag atggccaccg gtgagggatc 180  
cccccttcgg cagggtgccg gaacaggggc ccaattgggt tttgggtggct acagaggatt 240  
gcggcggcgg aactcccgat ctaggttatt ttctggaagt ttgggtatat ataagaggtg 300  
tttgcgtcgg gaacaagtca ggggggtctt cgaggcgccc acg 343

<210> 5310  
<211> 478  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-E7  
<400> 5310

tccggaattc ccgggtggcc gggagaattg ttgatcatga gatgacactc aaggataaga 60  
agagctccac aacaattcaa gtggttctta caaagcttca tgtgatgctc ctacagcatc 120  
aagtgagaat taagtctcga atgaagaatt gagcttaatg tgaagaactt caacaagttc 180  
tacaagaata gaagcaaaga gagaagttgc aagtcaaggt cctaaaatga caaaagatct 240  
tctagtcgtg atcgtaattg ctacaattgt ggaagacccg gacactactc caatgagtgt 300  
acgactccct acaagaaaat ataagattca ccaaaaagga ggagtagaag agatgaatca 360  
cctccaagag agaggagtag agatgatggg tatgagcgaa taccctctca tagaagcaag 420  
gattcagaaa ggaaggacaa gtcatcaaag agctacacaa ggccaagact gcaagctc 478

<210> 5311  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-F1

<400> 5311

```

ttccgaggtc gacggggacc tagtagatag ccaatgcaac ttcgtgtact tcggatgtgt   60
ccaacgacca gaccacgacc gcttacggat ccctaccttt atcaatacct catatatact  120
cgcaatattc agattgcttt tatcaaattc atgcttggtc atcgattgct tgcaggaata  180
gaccttcgtg gtcaggttga ttgtgctccg gtgtgggtcaa taacctctca gagttggttt  240
agcgattgct aaagcgcaac gtcgtgcacg tttgtagtca gatcgtaaaa gtcattcttca  300
ccaaatccat agttatcatc tcatcgaaag atcgggacac cccgcctcta tcatgtggta  360
tcagttttca ggttgctcgg tgagaatttc cagttttcct acattagatt tattttctta  420
cctattgtcc aataaattgc catacacaca atcagttaga tctgttcac ctt           473

```

<210> 5312  
 <211> 489  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-F5

<400> 5312

```

tacaggtccg aaattcccgg ggcgccgggg caaagtacta aacaccgcag acaaatacag   60
cgacagtcgc cacacataag agctatccga agcgaaaatt actactataa tttgatgagg  120
aggccttaga gccccgcga tcaaagaata aggaaaacac ccggtcgggt aaacaaccct  180
acggccaaca tatagcagca atgggcatcg tactcaagcc ggcacgcgat ccgcacaagg  240
actcgcatca aaaagacagc ccagccagat ctatctacgg gccaagaaag caagctctag  300
taagcaatgc aacgcaacaa gtatccgaac atcacggcac acccaaatac aggggtgccg  360
cacaccccct atgtttcacc gatgaggtgc tggaccatga atctccaccg ggattcaaac  420
ccgtaaacad agaggcatat gacggaacaa cagaccctgg agtctggatt gaggattata  480
tcctccaca                                     489

```

<210> 5313  
 <211> 474  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-G5

<400> 5313

tacagggtccg tacttcccgg gtcgccgggg ggagaatgga agcacgggag cgtccccctc 60  
 cccggcgctc ettcttctcc tccggggctc accaccgccg tggcgctca tgccggcgcc 120  
 ccactcacga cacgggagcg actctgccgc gcagagcgct cacctcctta tcttgtgtgc 180  
 cgaggcttgc tcgtctatct tcctttttac ccaggcccaa tagaaagtaa cggcccaagc 240  
 gttaacggaa gaacgtagac caagcccgtg agcgaaagaa cgttgtaata aggaattttg 300  
 acaaaaatct ttagtgcgta ccccaaatta gtaccacctc gtttatatta cgattttatc 360  
 tatataaatt gtaaaagcgt attatgacat gagaagaaag cgtattgtga cgggtgaaccc 420  
 gacaaagtca atccgtgctt tattattagg gagagataaa tggatgcagt tttc 474

<210> 5314  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-A1

<400> 5314

taccggtcca gaattcacgg gtcgacgggt agtacacacg acaacatcca agtttggtat 60  
 aataaaaact atcataggaa gtgaattgga tgctatgac aagttgatgc ttgataattg 120  
 ttttgagata tggaggtggt gatattagag tcatgctagt tgggtaattg tgaatttaaa 180  
 gaatacttgt gttgaagttg gcaagcccca tagcatgcac ttacggtaac cgttgtgtaa 240  
 caaatttgaa acatgaggtg ttcttagatt gtcacacctt tgagtggcgg tcggggacga 300  
 gcactggtct tttcctagca atctatcccc ctaggagcat gcgcgtagtg cttgattttt 360  
 gatgacttgt agatttttgc aataagtata tgagttcttt atgactaatg 410

<210> 5315  
 <211> 311  
 <212> DNA





gggtcgccgg gggaaggcga aatcttttct ggctgataga taaaaatccc caccacatcc 60  
gcaagcgcgga actccctccc cg gatctgca actagccggc ttccctcccg atccgtctcg 120  
ccgcgggcgga gatccttcct tcctccggcg agagccaaga tgtactcgtg ggagatgctg 180  
tcgttcaaca tccacgacgg gttcctggag gcgatcgtgc gggggaaccg ctccgggcctc 240  
ctcacccaag ccgattacaa caacctctgc cagtgcgaga ccctcgacga catcaagatg 300  
cacctctccg ccaccgagta cgggccatac ctccagaacg aaccttctcc cttgcacacg 360  
acaacaattg tggagaagtg cactctcaag ctgggtgatg aatacagaca catgttgtgc 420  
caggcgaatg aacctctatc tacattccta cagtacataa cgtatggaca catgatcgat 480

<210> 5318  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-017-Q1-E1-B12  
  
<400> 5318

gtccggactt cncgggtgga cgggatatat taaaaataa taatttagta ctccctctgt 60  
cctaaaataa gtgactcaac tttatattaa ttttatgaga aaaaatcacc atatattaga 120  
aaaggttgag tatgtattat gaaaatgttc atcacataat aaaagagctc accgtatata 180  
aaacgatcag taaatataaa gaatatgtat attaataata tattcggccg gtgttcggaa 240  
aatattgatc gcatatttaa aattgtactt aataaactat atgaatgaaa aagtgcaaag 300  
taaaaaccaa aaagacaaac aatgtgaaac ccagacatga aagaaagaga aaaaccact 360  
aacactgtgt attaaaaaag gcaaaagaaa aaataaaagg gaaaataaag aaataaaata 420  
agacataaat agaaatctac acataaacat aaaaccggaa ctaaattgga acag 474

<210> 5319  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-017-Q1-E1-B2  
  
<400> 5319

gggtcgacgg gtcggtacaa ggggtcagtc cctggccgtg ctcccaacct gaaccgcaac 60  
 aggaagagag gccacgcctt gctgtatgcc gattactttt ccaacanacc gctcttcaag 120  
 ccgataaat tctgacgcca ttttcgaatg ggaaggcatg tgttcaatcg tatctgagag 180  
 ggagtgggtg ctcatgaccc atacttcgag tacaagaggg atgtccttgg caagcttggg 240  
 ttctcctctt accagaaatg cactgcggcc gtccgcatgc ttgcctatgg aattccaggc 300  
 aatttgggtg atgacgacgt gcgtatgagt gagacaacat gtctgatgtc aatgtacaag 360  
 ttctgtcagg ctatgatcga ggtgtttggt ccagagtact tgaggcagcc aactgccgct 420  
 gatac 425

<210> 5320  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-B6  
 <400> 5320

aattccccggg tcgacgggga ggacgatgtc cagatcgcg agcgggctgt ccctgaagcc 60  
 gtgtttggcg agctcggaag gagagccgca gagagcaggg aggaaagctc tagtgctcaa 120  
 gagaacaacg agcaacagct ggggtgctctc gagagaatca agcgaaggcg tcaatagggt 180  
 cgaagattgt gatccaagca cgccattacc tgtcgtttga gcctaataat gttgtagctg 240  
 ttacgtgtaa catgttcttg ctacggtttg ctcttcttgt acaatgattt tgcaggagtt 300  
 aatccggtgt ggatccgcag cgtttttctg tgtacaaact gtaaactctt gggacacgtg 360  
 tccatcagtt tcagtgaat tttgtcgatt tcaacgatga acaatggact ggcagctttg 420  
 ttacaaa 427

<210> 5321  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-B8  
 <400> 5321

ggtaccagtc aagaattccc gggtcgacgg gggcggcaaa actccgaggc tggagactcg 60

aggagaacga ataagaagaa atcacgggaa caaaaaggag acgacccttc agtcttattt 120  
 ataaggcaac agagttatat caaacgcacg gatgcaagag ctgcagttaa aagaaggtgt 180  
 gatatatgaa aaatgtcata aggacgtcat gcaggttcta caacaaccac aagtgatgac 240  
 atcatgacag ttgaccaagt accagcacat gtcgatgata caagattttg tgacagattg 300  
 acatgaacca tttcagatca cactggggcc taaagttggg gatactacca ctatgtgtaa 360  
 gccggcatac ttggggccggg ttaacttcat tagtaggaca agcagatga 409

<210> 5322  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-C10  
 <400> 5322

tacgagtccg gacttcncgg gtggacgggc agcccatcca tcatgctacg tgcacctaga 60  
 caaaggcaca agggccacaa aagttggttt ttacttcatg gagcaagaga agcaatgtga 120  
 tgggcctaag gatttttttg atacgctagt agtacaacta tgggctgac catatgtttg 180  
 gcctctgtac gccaaaggcgt tcgagagatc aacagataag gcagcgtcca tacttaataa 240  
 atagttattt agattagagt ttagactcgg gttttattgt actccctccg tccggaaata 300  
 cttgtcatca aaatggatac caggagatgt atctagacct actttagttt tagatacatc 360  
 cctttttagc aaggtttgat gacaggtact tccggacgg 399

<210> 5323  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-C6  
 <400> 5323

aattccccggg tcgacgggtg catgtcatag agagagacct gacagagcct gatagaattg 60  
 tgggtgaatt gttacaacct ggaggctacc tgaaattgat ggaattgggt ctgcaggact 120  
 gcgttgatga aattgatgca cagcgtgtcc ttggttatgc attattcaaa gatgggaaga 180  
 acacaaaact ttcttacccc ttggagaagt tccattcaga tgtggctggc aggagctttc 240

acaatggacg gttcatacag aggatgagag aaaaggttgc atctttgccc aatgtccaac 300  
 tggagcaagg aacagttaca tctttgcttg aagaaaatgg tacagttaag ggtgtgcaat 360  
 acaagatcaa gtcaggtgaa gaactaaaag cttatgcacc attgacaatt gtatgcatg 420  
 gctgcttttc aaacttaaga cgtgcccttt gctctccaa 459

<210> 5324  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-C7  
 <400> 5324

aattcccgagg tcgacgggta catgtaaact attgactcac ataccttcaa atggtgtgtc 60  
 ttatcttcat atagatgaat taatttagcc catatataat atccacctaa taatcagata 120  
 tttggataat aataataaac agctggttac cagcagctct tgccatgata ctttaaggcac 180  
 aaacagtttc tacaacttcc aatggtatca ctatgcataa tattttgttg acagaaaatt 240  
 cactccccctg cagattggct gcaaacaaca aaaatatgct gacaagttgg ccaacttacc 300  
 aatgcatcag ttttcgtact tgtcttgaaa tctgctaggg tttgtagtct ggctagtatt 360  
 cctgaacggt tgccagtctt caaatttgca cggacctttc at 402

<210> 5325  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-D1  
 <400> 5325

actccctata gtgagtcgta ttaagggtagg cgtttttgtt ctctttcact aagggggctt 60  
 ataagatttc ctgttgagtt ttgtgttggt aagtttacaa gttttgggtt aagctttgaa 120  
 ggactacgga atacagtggc gagagcctaa gcgtggggat gcccatggca cccacgaga 180  
 tactacgagt agcaaaaagcc taagcttggg gatgcccacaa gaacagcatc ccctctttcg 240  
 tcttcgttca tggggaactt tacttaaagc tatattttta cacgccacat cataagtatt 300  
 tttctgcag cgtcacgtac tacatcaatc ttaacttttt aatataccac aatcatcctt 360

tctgtacaca ccttttga

378

<210> 5326

<211> 303

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-D2

<400> 5326

tcgtattaca tgatggcgga gatcgacacc gacggtgacg gcttcatcga cttcagcgag 60

ttcatctcct tctgcaacgc caaccccgga ctcatgaagg acgtcggcaa agtcttctga 120

gtcagttcat ttcacctcag ccgtccgatc caggagccga ttcattctacg tagggcctcg 180

tatatcaatt tcatgcaact acctactccg gtcccgatcc agcctcagct tcagctgagg 240

ccggccctaa ctttggttga tcattttttt gctaccagta gtaactagtg atgattactg 300

ttc 303

<210> 5327

<211> 407

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-017-Q1-E1-D5

<400> 5327

attcccggtg cgacgggagt tcattaaact accttaggtg gtggttttgt tttctttcac 60

taagcggggc ttataaggat ttcctgttga gttttgtgtt gtgaagttga catgttttgg 120

gttaagcttt gaaggactat ggaatagact ggcgagagcc taagcgtggg gatgcccacg 180

gcaccccaag agattctacg atangcaaaa gcctaagctt ggggatgccc caagaacagc 240

atccccctctt tcgtcttcgt tcatggtgaa ctttacttga agctatattt ttacacgcca 300

catgataagt gtttttcttg gagcgtcacg tactacatta atcttatctt tataatatac 360

cacaatcatc ctttctgtac acaccttttg agataagccc acatgat 407

<210> 5328

<211> 437

<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-017-Q1-E1-D6

<400>      5328

```
attccccgggt cgacctccgc ggacaagggt cagcgcatga tggcggagat cgacaccgac   60
ggtgacgggt tcatcgactt cagcgagttc atctccttct gcaacgcaa ccccggggtc  120
atgaaggacg tcgccaagggt cttctgaatc agttcatttc acctcagccg tccgatccag  180
gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc  240
ccgatccagc ctcagcttca cctgaggccg gccctaattt tgtttgatca tttttttgct  300
accagtagta actagtgatg atcactgttc catcatttat ttattttata tcatcacaag  360
tttcttttct ttctctacct tttgtcgat cgtcgggtcc agtcgatcc aacgattcat  420
gctgctaatt gtttgtg                                     437
```

<210>      5329

<211>      451

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-017-Q1-E1-D7

<400>      5329

```
aattccccggg tcgacggggg aacgaaaaga tcatggctag gggaaactttt gccaacattc   60
gcattgtgaa caagttcttg aaggagaggg ttggcccaa aaccgtccat gttccatcag  120
gggagaagct tgctgttttt gatgctgcta tgaaatacaa gaatgaaggg catgacacta  180
tcatcctggc tgggtctgag tatggcagtg gaagctcaaa ggattgggct gcaaagggtc  240
caatgcttca cggagtgaac gccgtgatag ccaacagttt tgacaggatt caccgtagca  300
atcatgctgg aatgggcatc gtccctctat gttcaaggc tggcgaggat gccgacagtc  360
ttggcttaac tggccatgag ncgttacacc atccagcttc cgactgatgt gaatgaaatc  420
aagcctggcc aagatgttac agtcacaacc g                                     451
```

<210>      5330

<211>      440

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB104-017-Q1-E1-D8

<400> 5330

aattccccggg tcgacggggg cagtgaggcg aacggcgggg atgacctaca tcggctactc 60  
caggctctgc gcgtccattg tgcggagctg cctcaaggag ccctacaagt ccgaggccgc 120  
cgaagtcgag aaggtccact actcccgtc caagtggacc gacggaaagc agcccaagcc 180  
caccatctgc gaagatgata aatgaaagat ccggtgccat ggtgacagag tccttcctac 240  
ggacgttttc aaaagctact gtgtttcgtg ctggccattc tacctaaaac tcgttatctg 300  
ttacatttat gtttcacgct caagaataaa ttatttacgt gacattggat ctgttccgac 360  
accattttat ttttaactttt aatcgctcct tctctaaaaa gaaaagaagt ggaagaaatc 420  
aaaacaaaaa agcggccgct 440

<210> 5331

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-E1

<400> 5331

gggtcgagcg aaggtttgca gatcacccgac aaggatcgac catgagtga atcaaccgga 60  
gtcagatcag ttctacgttg aaggagaata ggggaagaa gtttatcttc cgtgttaagt 120  
cacagcccct ccaaccagac gtageccctt ggcagaaggg tgaactggtc taccaaatat 180  
atctgtctcc atcaagcacc attggttcta tttactctac tgcatttcca tcagcagttt 240  
attttcgtgc tctgtgccga tagttttttc gattatttca ttcaggttgt tatcaacttg 300  
tgtttcaatg ttcacctgt ttcactgttt tcgtctgtat tcatgtgtta tcattctgtc 360  
cctaagattc acctgtgaaa tccttcata cattgctatg tctcattcta ctacattttt 420  
ttgcatgttg c 431

<210> 5332

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-E5

<400> 5332

attccccgggt cgacgggacg acacagtcac aatttcagtt tccctagttt tccatgtcaa 60  
gctggcgcg c taagccatta tgcattgaat tccgatgacc atcgcgctac cttcccccta 120  
taagtactgt ttcccagcct tctccagtgc caccgtgacc caactcgcca taccctcata 180  
agccccacc ggctcgatgt cgctcgccac gtacgccatg cccccgccc tccacagtag 240  
gcgacgccaa aggcgggtcac tgccggaact agtggttggg ttttacttgg aaggcagacg 300  
gagggaggag gcattctatc tgtctttaga tggcaatgcg tagaccgagg agttgttgga 360  
gcgcgaccgc atggcgagg agcaggagtt gttggagcgc gaccgcctgg cgga 414

<210> 5333

<211> 368

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-F1

<400> 5333

gggtcgaggc gagcacttag gtgaaggcat acttcgttga ctgaggaagt gtataaagat 60  
gttgtctgac ggtggttgta tatcaatctt tgcttgctaa acttccgagt tccactgggt 120  
cacgtttcat gcacatgtag tcggtgggga attacttacc atcatctact agtgagcctt 180  
gattacagca tatgtttcgc gacgtacggt ctccaaatag atgcagctcc ctactatcag 240  
gtagcggcaa ctgagtttac atcaggcggg cagttacca tcagttattg ggtgctgata 300  
acctgacatc tggatctcac gcaggataat aatgcgtagg gtgaccctga gacaatattc 360  
ccctggat 368

<210> 5334

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-F3

<400> 5334

gggtcgacgg ggattccaat ttccattaag gaaaggcatg gaacactttc ctagaaagaa 60  
aattaaatta ctttatgaat ctattatgag atccacttat ggattgcata ccaaaaatga 120



caatacctag atctattctt gtttttatgc ctagctaggg gcgttaaacg atagcgcttg 180  
 ttgggaggca acccaatttt attttcgttt cttgtttttt gttcccgttt agcaataaat 240  
 ggttcatcta gtctatgttt ggatgtggtt ttatgtttta attggttttt gtgccaagta 300  
 gaaccttcgg gaagacttgg gggaagtctt tgcggctctg ctgtaaaaaa cagaaacttt 360  
 agtgctcaca agattttatg ccatttttta ctaaagagtg ccattagggt gattaatttt 420  
 aagatgat 428

<210> 5335  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-F4  
 <400> 5335

gggtcgagtc atcaggatag aatcgatata atctggaagg gccaggagct catcttccaa 60  
 agaacgatcc ggttattgac cggcatcgat ctgtcaggca acctcttgtc tcagtgcac 120  
 cctgacgagc taaccaacct ttacggcctc cgattttctga acctgtcaag aaatcatctg 180  
 tcatgcggca tccctggaga tgctcgtagt ttgaagaatc tcgagtttct tgatctatca 240  
 tgtaatgagc tttcaggaca cattccacag agcatctcgt tcttgtcaac gctcagcata 300  
 ttcaacatct ccaacaatca tttgtcaggc angatacctg gtgggagcca gatgcagacg 360  
 ttgactgaac cttcgtttta ccggaacaat tccggccttt ggggatttcc tctagccgat 420  
 tgtccaacta 430

<210> 5336  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-F6  
 <400> 5336

aattcccggg tcgacggggg tgccctaccag cctcatcatg catgggtcttc gaagaagggt 60  
 catcctcacg gccagggtgta tgggtatagg aactccctct gggcagaaca ccttggtatg 120

gttgatgacc acttcaagga accttctagc ctggactgtg taagattagt gaaccaaata 180  
gccgaagaaa actgggaaag attcgcgtca gaagagatga aaacgttgca agggcacctc 240  
ctcagatacc cagtgaaggt agagcccgat ggtaagattg tcccgctgcc cgaccaagaa 300  
tgcttccccg acgttggcgg caagatctgc ggcgctccga cctcgcttcc tgattcgctg 360  
acgatgtagc atcacagtac tgacttctct tcagggtcca atctggttcg tttgct 416

<210> 5337  
<211> 466  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-017-Q1-E1-F9  
<400> 5337

gggtggccgg ggaataagga gaggcaagat cctaagcttg gggattccca aggcaccaca 60  
atgtaaatacc aaggacaacc aaaagcctaa gcttgggtat gcccggaag gcatcccctc 120  
tttcgtcttc gtctatcggg aactttactt gaggctatat ttttattcac cacatgatat 180  
gtgttttgct tggagcgtct tgtatgattt gagtatttgc tttttagttt accacgatca 240  
tccttgctgt acacacattt tgggggagac acgcatgagt cggaatttat ttgaatactc 300  
tatgtgcttc acttatactt tttgagctag acaatattgc tctagtgtt cacttatatc 360  
tttttagagc atgggtgggtg ttttatttta taaaattat ttatctctca tgcttcactt 420  
atattacttt gagagtcttt tagaacatca tggtaatttg ctttgg 466

<210> 5338  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-017-Q1-E1-G1  
<400> 5338

gggtcgaggg gtcataccaa ggctaaggag tgatgtggtg caatgtcttg tcagtttcga 60  
gctgggtgttc ccatcatcct gcttcaatat catgacgcac gtcctagtgc atctagttga 120  
cgagattgtc attctgggcc ccgtatttct acacaatatg taccctttg agaggttcat 180  
gggagtccta aagaaatatg tccgtaaccg cgctaggcca gaaggaagca tctccatggg 240

ccatcgaaca gaggatgcca tcgggttttg tgttgacttc attcctggcc ttaagaagat 300  
 aggtctccct aaatcgtggt atgaggggag actgactgga aaaggcacgc ttggaaggga 360  
 ctcaataata tgcagggacg gatattcttg gtctcaagca cactacacag ttctacagaa 420  
 ctctaccttg gtgaccc 437

<210> 5339  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-G3  
 <400> 5339

gggtcgaggc gataaactca tgcaatatga tcaaaacccc atctttttat cctcgatggc 60  
 aacaatacaa tacgtgtcgt ttcccctgct gtcactggga tcgagcacgc caagattgaa 120  
 cccaaagcta agcacttctc acattgcaag aaagatcaat ctagtaggcc aaaccaaact 180  
 gataattcga agagacttgc aaagataacc aatcatacag aaaagaattc agaggagatt 240  
 caaatattgt tcatagataa actcgatcat aaaccacaaa ttcacggat ctgcacaaac 300  
 acaccgcaa aaaagattac atcgaataga tctccaagag aatcgaggag aactttgtat 360  
 tgagattcaa agagagagaa gaagcatcta gctaataact atggacccg 409

<210> 5340  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-G7  
 <400> 5340

attcccgggt cgacgggcac aggcacgagc cttcaccatg gaaaagactg agacgggaga 60  
 cgtgtaggtg cccatacact tctcaatgtc ccatcaccag gctcggaact gggactgctg 120  
 tccattcaag aaatcagtgc gtccagctcc taacagtctg gcattctcgt gatgctacat 180  
 tacatgtagc aatgtcaatt tatatagtta tgcagacgat tcgttatgat aaatcccccg 240  
 cgagaccaa atgcgatacg gacacgcgag atgatacgcg cttacatgat cgatcataca 300  
 acatgcagtc tctgcaatac atgtcattct ggtgtccgtt ac 342

<210> 5341  
 <211> 82  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-G9

<400> 5341

ggtatcacta taatgagtcg tattaggtga cgtacgttct tacccttaag ttcgggtact 60  
 ctctgcagtg gcataaccat gt 82

<210> 5342  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H1

<400> 5342

gggtcgacgg ggctattggt cagcttgcaa ggctcctgtg ggaagctgag aagtcggggc 60  
 actaccagta cttcctctgt gtcactggag accactctac tcctgttgag tacggagacc 120  
 acagctttga acctgtcccg tttgcaatat gccgtctgag agatttcgtg ggagcgattg 180  
 gggagggcaa tgtgatgaat accccccttg acgatttccc gctgcctttg gttaaaccg 240  
 gagaagattt aactgatgat tcagaaccag cggaacacaa gcttggggag cgtaaagctt 300  
 ttagcggcga tacagtgtgt gaatacccg agattgctgc tgcaaggggc tgccttgggc 360  
 ggttccctgg aagtgagatg atgggcatca tcaagaagtt catgaaagca aagaacgatt 420  
 aacgcc 426

<210> 5343  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H11

<400> 5343

gggtggacgg gtgatacgtg tactggttgt gatatcaaga ttaggagggt gaatgttaga 60  
 gctaactctg atatttctat tagcatgttt gagttttgca tgtagtctag tctagtgtgg 120

tgttcgtccg acgaaggctt caggtgagcg cgccaatgag gtgagatgcc aggatgccgt 180  
 gtgaggcggc gagcacggcg agatgccgat ggtgctgctg gagaagcggc aagacgtatc 240  
 agaggcaact cgacgtagaa gaaggagcgg cgctgcgagg aggcggcgcc aacaattggc 300  
 atcagagcct tgtcgatccg cggaagcgat ggcagcgacg acgacgcggc ggactccatg 360  
 ttaagtggaa gacgtcggca cgatgtgggt ggccgtcggc ggcgcgatgc taccggtggc 420  
 cggttgcggt gtgatccgc tagattatgg cggtcg 456

<210> 5344  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-H7  
  
 <400> 5344

tacagtcaac aattcncggg tcgacgccta cctgcattac atcttcggcg aggagaacga 60  
 gccggagcag gtgaggagc aagagcttca tcggccggtg caggcaccat gacccatcgg 120  
 cagcgatatc agcgtcacag tccttgggag cacaatcgac atattgcaga ggaggtgtga 180  
 taagcagttt gccatccacc gtgcaaaaga tccagagctg ctcgggcgga tgatcgacga 240  
 cccacccgaa gagacaccct caccagtgtc catcgagagc ctgatgcccc acaaggaatg 300  
 ggcagaggac ctctgcgatt cagtcaagat aaaggcagcc tacggcttca tcattgcccc 360  
 cggcgtccgt gtcaacctcg attctgatga tgtggtggcc aagctcgagc gcatecttgg 420  
 cggagttgac gtccctgacg aagtagaaca tccccaacgt tataacc 467

<210> 5345  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-A11  
  
 <400> 5345

ccctagagtg agtcgtatta cgtgcacgtt tgtagtcgga tcgtcaaagt catcttcacc 60  
 aaatcgatag ttatcatctc atcgaaagat cgggacaccc ccgcctctat caagtggat 120  
 cagttttcag gttgctcggg gagaatttcg agttttccta gattagattt attttcttac 180

ctattgtcca agaagatgcc acaaagaaga gttagatcta ttcattccttg gtccaagcca 240  
gtctgagcct ttgcaatttt cttttcattg cttgcatagt tgatttatcg gttgcatcgt 300  
cgtgtccaat tgct 314

<210> 5346  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-018-Q1-E1-A6  
  
<400> 5346

taccgatcca gaattcgagg gtcgacagct cctctacga cggggattgc aaatgcatgg 60  
ccgcagtctc caagatcctt tcatcgtacc ctgggccagc cagacgcctt gacatccgca 120  
tggttcattac caactgcaag gtctaagcca agtacggcga gtggttctta tcgccctccc 180  
ttgatcaact cgaggagctc agctttgaag ctggatgatg tcgctctctg ccgccatccg 240  
cgctccgcct cagcccaacg ctgcaccgag ccagcttcag ctcttgctat cttcnccagc 300  
cgcgcctgtc cttctttctc ctcaactcaa gcagctcgac ctcttcgaca ttggcatctc 360  
gaagcaggct atggagcacc tgctccgcaa ctgtactatg 400

<210> 5347  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-018-Q1-E1-A7  
  
<400> 5347

gacggggtag gttaaaccacc aatataaata aataatgagt tcattacagt aacttaaagt 60  
ggtgggtttgt tttcttatac taacggagct catgagattt tctgtttaag ttttgtgttg 120  
tgaagttttc aagcttttgg gtaaataatt gatggatttt ggaacaagga gtggccagag 180  
cctgagcttg gggattccca aggcacccca aggtaaaatt caaggacaag caaaggccta 240  
agcttgggga ttctctggaa ggcattccct ctttcgtctt cgtctatcgg taaatttact 300  
tgaggctata tttttattca ccacatgata tatgttttgc ttggagcgtc ttgtatgatt 360

tgagtctttg ctttttagtt taccacaatc atccttgctg tacactcctt ttgg 414

<210> 5348

<211> 59

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-B12

<400> 5348

gggacaccct atagtgagtc gtattaggag attggcacgg agtacacggt tgagcatgt 59

<210> 5349

<211> 440

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-018-Q1-E1-B2

<400> 5349

gggtcgacgg ggcgacggaa gcgatggact gccggccggt cggcggcggc gagagcaagc 60

tcaaggcgga ggcgacgacg gacaacaagg ggtggtacaa gatcgagatc gatcaggacc 120

accaggacga gatctgagag gtggtgctga ccaagagccc cgacgcgtcg tgcgccgaga 180

tcgaggagtt ccgcgaccgc gcgcgcgctn cgctcaccag caacaacggc atgaagcagc 240

agggcacccg cttecgccaac cccatcgctt tcttcccca ggagccgcgc aaggagtgcg 300

gcggcatcct ccaggcttac gacctcaagg acgcaccoga gaaacccatg aaccccatcc 360

catccatata gtctcgctca ggttgcttcc atcatcatca tcatcatcgt ctctcatga 420

ctctcctacg tacggtgccc 440

<210> 5350

<211> 149

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-B3

<400> 5350

gggttcacga cagaagatcg tgtaagttgt tctggtgcca ttcgaaatgg ttcaaaggta 60

atggattgag gctgctctga aggatccaca ctgacgtaca cttgcatgcg acctcatagc 120

acctctatag tgtcagctag gattcaatt

149

<210> 5351  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-018-Q1-E1-B5  
  
<400> 5351

aattcgcggg tcgacgggcc cataaaataa gagcggtttt gacagtagtg tagtgtaaaa 60  
aacgctctta tattatggga cggaggaggat agcatggaac aatcaaaaat tatagatagc 120  
ttggagacgt atcagcatcc ccaagcttaa ttctgctcg tcctcgagta ggtaaatgat 180  
aaagaaacag aatttttaat gtggaatgct gcctaacatg ttcatcacat attcttttct 240  
ttttagcat ggacatatgg acttttatat ggttcaaagc aatagtctag ttttgaaatg 300  
aagatttcaa tactcaagca tatcaacaag caaccatttc tttcagaata tcaacagtaa 360  
agaaagttat ctctagccca tcatgctcaa tcattgatcc attcatgaaa cacactcgca 420  
t 421

<210> 5352  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-018-Q1-E1-B6  
  
<400> 5352

aattcgcggg tcgacggggtc catagaatgt caagctcctc tttcagcagc cccagataca 60  
gattgatgtc gttccctggg tggtttggcc cttcaattag cataactcatg tgaatgtact 120  
tcctcttcat gcacaaccag gggggaagggt tgtacatcca cacaacaca ggccagggtgc 180  
tatgtgtgct tctctggctg ccaaattggat tgactccatc ggtgctcgcg cccagcacga 240  
tgttcccttg atcgttccca aattctgggt attcgaagtt caacgcttgc cactggctcg 300  
cactcttacy gtgactcagc atcttgtctt ttttatctat ctccggatca tttgctcaa 360  
cttctcgctt ctccccctcc ctaccgcct gccaacgcag gagctttgct acc 413



<210> 5353  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-018-Q1-E1-B7  
  
 <400> 5353

aattcncggg tcgacgggta acattaaacc cactatcttc gatttcaagg aatttaatta 60  
 tgataattgt tcttttagtag attgtatttc cttggtgcaa tctgtgttga attctcctca 120  
 tgcttatagt caaaataaag cttttaccaa acatattgtt gatgccttga tgcaatctta 180  
 tgatgaaaaa cttaatttgg aagcttctat acctagaaaa cttaatgatg agtggggaacc 240  
 tactatagag attaaaatta aagatcatga ctgttatgct ttatgtgatt tgggtgctag 300  
 tgtttccaga attcagaaaa ctttatgtga tattcgaggt ttccatgatc ttgatgattg 360  
 ctctttaaat ttgcaccttg cggattccac cattaataa 398

<210> 5354  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-018-Q1-E1-B8  
  
 <400> 5354

aattcncggg tcgacgggag aaggcagtgt atgtcatttc gcacacggag gtgacacgtt 60  
 ccctctcgga tccacgggcc ttcttgagag aagctccgat ttgcaaaaag cttataccaa 120  
 agcttgtccc aattcggcca taaaatttac cacaacatgt tggtgccatg tcatgacacc 180  
 atgccaagtt tcatgatttt caagcgtgct ttggatttag atgaattaag aaaccaactc 240  
 aatattttcg gtcgagccat aacgcccaga tgtttgaatt tcattctcat ttcatgcatg 300  
 ggacctagaa attcacctaa ggacacacat gtgatttttc aaccaacttt ggtgcactgg 360  
 agcatgtgct tgtagtttaa atttaaatta tcacattaaa tgacta 406

<210> 5355  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C1

<400> 5355

ggtccagaat atccgggtcg accggttgat acacacttga ttgaaggagc cggtcacttc 60  
 caaatggaag gtcttgcttt tgatgccag atggtagatc tcattgtcaa ttttatcaaa 120  
 tctttgccca aatagtgtac tgtaactgtg tgaaagtgcg caaagcgtgt agtgatgaac 180  
 atcgaaaaca tacgatttgg atagtgcctt catggtttgt attttctcgt gttgtatgtg 240  
 tacactgggt gttgtgttcg agatagtaat caaatcttag tttccatttc atatgagttt 300  
 tagactcagt gatgcaagcc gcatggaaaa tcttattgtc atcacgacat tgtaatccaa 360  
 tcttattatt gtttgtatag ccat 384

<210> 5356

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C10

<400> 5356

attcccgggt cgacgggatc ttcctagatg atgataggcg cttcagcatc aagctggact 60  
 agaacttcaa agtggataca gtaagtcaca acgacaagtc ttttttcgta attaagcatg 120  
 acatctgctt catttgcttc aacttatatt ttttactatt ctactagcgt atcccctgcc 180  
 atgcaagagt ttttgtattg gataagatag gtttcagtca tagtatggag gaaaagaaag 240  
 tttacttgaa gaccgagcat ggttatattt tccatgcgaa gttatacaat tcagacgact 300  
 acacctattt tggatgcaaa acatggcgag cactatgcaa gacttatgca attgagccct 360  
 gataaggggt atcacccctt gaatatccgt cggaagatg atattgaagg taataccgac 420  
 atctgggtca atgtgcaaat 440

<210> 5357

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C5

<400> 5357

aattccgggt cgacgggaca cggaagcctg agccctgcaa gagaagacag ccaagaacgc 60  
ggcgcgatgcc acgcaggggg cgcacgacac cttgaagaac gccgccggct cgatatacta 120  
gttcggatcc ggataccggc ccacctgcat attgcatctg ttctgtctgt ctctgaatt 180  
gtcatgaagt ggagagatgt tctgatgtag aatttccgtg cgatgtggtt gcgcccggct 240  
tgtagcaciaa ttctttcggc gcctccagat cggggccgtg ttgttgatgc gtaactcgtg 300  
aatctttgac gcaatgagat gcatttcgtc 330

<210> 5358  
<211> 358  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-C6  
<400> 5358

aattcacggg tcgacgggta agtttacta gtggcttctc tcaagagcat aagtatttct 60  
acggtgggtg aacaaattac tgttgagcaa ttgacagaat tgagcatagt tatgagaata 120  
tctaggtatg atcatgtata taggcatcac gtctgcctcg aaaaaagac ctgctgctgc 180  
cctgttgctt aattataaat gccgttgaag cgatcgagct aagaatcagt gaaagatgac 240  
aataagcaat cttggtacac ctctaaatac gtagtcttta tttgttaacg gtgtccctat 300  
ttatgacctg tcaaccaaag atttgtgtac tctagtaatg tatgtattat atcaccac 358

<210> 5359  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-C7  
<400> 5359

aattcccggg tcgacggggg acgagaactt caaagtggat acaataagtc acaatgacaa 60  
gtcttttttc gtaattaagc atggcatttg cttcatttgc ttcaacttat aatttaagca 120  
tgacattaag catgacaagt ctttttttac tattctacta gcgtatcccc tgccatgcaa 180  
gagtttttgt attggataag ataggtttca gtcgtactat ggaggaaaag aaattttact 240  
tgaagaccga gcatggttat attttcaatg taaaattata caattcagac gactacacct 300

attttggttg caaaacatgg cgagcactat gcaagactta tgcatttgag cctgatatgg 360  
 ttatcacctt tgatattcgt ctaaaagatg atattgaagg taataccgac atc 413

<210> 5360  
 <211> 325  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-C8  
 <400> 5360

gacggggcag tagagttggc ctgaggccag accatataat agatacgggc gtgttctaca 60  
 caggagttct tgtagaacat gttccagtca aacctcgttc ccttcgtctc cggttttcaa 120  
 taccaacacc tgtcatcctc gtctcccatc gtttgatgg aatagccaca tggagctgac 180  
 cttcacttta cagagacagg ggcaagccga taattttag cctccctggt tgtattctgg 240  
 aaatttcagt agaactgaat ccctgtagga gctcactaaa gactctagct aagacctttt 300  
 tgagacgctg ggtgactcgc gtgga 325

<210> 5361  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D5  
 <400> 5361

aattcccggy tcgacgggag gttcaaagga gagaagcgac agagtttagaa gttgtaaata 60  
 tgcattgttg tatcgcgacc tgaatgaaat aaacgaaata atgctcttgt tcacaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 ccggccgccc aaaaggttca agcctaactt acccttcaag gcaagttaaa acccctccaa 240  
 aatttcaacc aaaatcaatt taatggccct ccttttaaaa acttcttaat gggaaaaacc 300  
 ctgcgттаac caaactaaac ccctttgaaa aaaatcccca tttcccaagc gggctaaaaa 360  
 caaaa 365

<210> 5362  
 <211> 345

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-D8  
  
 <400> 5362  
  
 gacgggatgc aaaagataca caaaatatgg aaacttcggg caagtttggt gatcatagga 60  
 gcattgagac gcagacaaat ccaattgata gttctatagc actcttactt tttcatcagc 120  
 catcagacca agtggctgga gctgttgaca atcctcgcca ctaaaatctc ataacgagaa 180  
 ccacaaggcc tatgctaaaa actaggttgg ttaatgttgc gaaaattact ggagatggct 240  
 cgtggagatt caaggatcgc ctatgcatat attgtaatca tcatctccgt gaatgcatga 300  
 gcaatcgtga atgtttatcc gatatggtac ggtacgttcc gtttt 345

<210> 5363  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-E10  
  
 <400> 5363  
  
 aattcccggg tcgacgggcg cgttacgaaa gctgaggctt tattacgaga caaagaggaa 60  
 gaaaatgcga tgctgaagca acaattggaa cattatgaga ataaatggtc agaataatgag 120  
 accaagatga aagttatgga agaggcatgg aagaaacagc tctcttctct gcagttgagt 180  
 cttgtggctg ctaagaagag cctagctgct gatgacatgg tcacccgagc agctcggact 240  
 gataccactc caacgcatgc tcaatacgac tctgaagata caatgtccac agggacccat 300  
 acctcagacg ggacagagtt gaaataccag aaccaaattc cctaagctaa aatgggcaac 360  
 gggaaactca aataggcggg ataaatgcgg tgaatcacct atcaaaggag tttgaggaca 420  
 ggcgacaggt attcga 436

<210> 5364  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-E11  
  
 <400> 5364

attcccgggc cgacgggaga aagtatgcaa tagattgaat aaatagatag caaataaaat 60  
aaagtgcagc aaagtatttt tggtttaata gatctgaaaa taaatacaag aaaaagtaga 120  
tcgcaaaggc aaatatatga gaaagagacc cgggcgccat aggtttcact agtggcttct 180  
ctcgagaaaa atagcaaacg gtgggtgaac atcaaatact catgacgata tccaggcaat 240  
gatcatatag gcatcacgtc caagattagt agaccgactc cttcctgcat ctactactat 300  
tactccacac atcgactgct atccagcatg catctaatac aataagttca aggaaaaatt 360  
ggagtattgc attaggaacg atgacatgat gtaacaaga tctatctatg tagagatgga 420  
cccatcggtt ttatccttag 440

<210> 5365  
<211> 349  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-E9  
<400> 5365

tcccgggtcg acggggattt taaccatgat agcgtggctc gccgtgcatt gaaaaataca 60  
tgtctcgctt atcttgcac cctgaatgag cgagatgtca ctgaacttgc attaactgag 120  
tacaagtctg ctacgatcat gaccgagcag tttgctgcat tagcagcatt gtctcaaaat 180  
ccagggtcaag tccgtgagga tgcccttttg gacttctata acaaattggct acaagattat 240  
ttggttgtaa gcaagtgggt tgctcttcaa gctacctcgg acattcctgg aaatgtagtc 300  
catgttcaaa agtgactggc tcaacctgct ttgacatgc cgaatccgg 349

<210> 5366  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-F7  
<400> 5366

acgggctaga ctacggtggt gaggaagggt gtgcctgtct tgcgaagat gagagagggt 60  
gcatgtgtca taaccttttg gtttggataa tttatcattt ttcttataaa attccctctc 120  
attattgaac tacaattagt tacatcatct atctagtaag agacgaatga gttcaacagg 180

aagttagtagc aatatggggcc cttggacatt aatttgcgct agtcatggg caacctcatt 240  
 tgattctcta aagtaatgca cacaattagt actaggaaag tcacaagcta gatggtagca 300  
 atcagccaca accgcagttg caggttccat tgatctccct ctttcttttt ttttgcggga 360  
 ccattgatct cctccatca ttcattgagt ttactagttc aaattatccg aatttaccaa 420  
 a 421

<210> 5367  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-G7  
 <400> 5367

gacgggttaa tccacgtcaa tttggaatct acaggacttt ccacaagttc tgctgttaag 60  
 taccaccata atcagtggct gcgttcatgg gcatattcac cagcgcgggc taccgctata 120  
 gctgacagaa agtgtgcttt ctcagcatga agataatata atgggaagga atattgcgtc 180  
 aagaagaacg atcgggtaga gcttatcacg gcaagctaca ggtcgtacct agcagacaag 240  
 cattgtctca tgaaagttaa cttttttag atgtacaaat tgatgtagaa taggtgaatt 300  
 taatttcac tatacatgat caattgcttg ctgtacattt gactaaataa agcaataaat 360  
 cag 363

<210> 5368  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-A10  
 <400> 5368

gtaccggacc taaattcccg ggtcgacggg ggcgacgatg tggatgtgga cgaggcggat 60  
 agaaagctct tagatgatga aaagaaaccc gatatcacga aacgaccaca cgctcctatt 120  
 gaagatgagg tggaatgcaa gaagccaaag atagcagaag gctcaagggtg ccaaggagaa 180  
 gaacctgagg ctggagggat aaagaattcc tcctgggtct gatgacaggg gaatgcagta 240  
 aacaccagaa gcatcaaaac tatgatctgg aacagtatcc tgaataaact attttctgga 300

ttatgaatga attctgaagc atgggggctat aagtgaatta tgtaacatgg atttgtaact 360  
atggtggatg ttaaagttaa cgttctatca gtacatcgtg aatgcgtgct gaatatg 417

<210> 5369  
<211> 182  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-A11

<400> 5369

attcgcggt cgacggggga aaaaaataa aaataaaaaa aaaaaaaaaa aaaaaacaaa 60  
aaataaaaaa acaaacaca aaaaaaaaaa aaaaaaaaaa agcgcccact caaaaggatc 120  
gaagcttact tacccttgca tgcaacttca tgccactgca acattgtcac ctaacttcag 180  
tt 182

<210> 5370  
<211> 424  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-A2

<400> 5370

ggtccagaaa tcccgggtcg acggggggct gaaagagggt ttatatcacc ctttctggga 60  
acaactgatg catcagccag atataacctg gacaaaaagg ctttcttctc ttcagcactt 120  
tctttgcgcy tgccagtatc tgaggatttc ttgagtaact gaagtactga ttgcagtgtc 180  
tcaatctttt caggatttat ccctggggag caacgatgtt tccagaagtc aacttccttg 240  
tcacggtgcc atgcacttcg tctccttctt gtggacgatg catacaactt cttggtcaga 300  
ttctcacgta tcttgccctt ttgaagcagt gacttccttg cgagtgaaag gttgggtttt 360  
ttggctggtc catccatgga cttcccaatt gctgaacgga atgcggtcaa aagtttttcg 420  
tcaa 424

<210> 5371  
<211> 362  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB104-019-Q1-E1-A5

<400> 5371

gacgggcaaa tcgaaagaac aacaaaggac cggaagaac ggtcagtcgt cgccgaacgg 60  
gatcatgatac acgagaaata tctatatacg ataataaggt tgtgttattg ccgccatgtc 120  
cggtgacctg atgtttgttt cagctagaga aatcgtaag cccgctcata atttttcgac 180  
gccatggaaa ataataacta ctggtatatc actctataac aaaccggctt gtgaaataaa 240  
tggttgcgcc ccggtttttt gtcgtcaaaa aaaatgaaca aaggagttgt aaaaagccaa 300  
aaacttgcca aagcgcataa tataccaacg ggctgttcta aaggatccaa gcttaagtac 360  
gc 362

<210> 5372

<211> 393

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-019-Q1-E1-A6

<400> 5372

gtaccggacc agaattcccg ggtcgacggg gcggactcct cccccaaga cgaggaggag 60  
gaagaagact ctctcccgga ggaggagag aggaagagga aggcttcccc aatangggag 120  
gctgaagggt ccaagagggg gagaactatt ccccggaaca gctctgcca caccaatgtt 180  
ggcgaggagg agtgcccttc aagggccagg cctcctgcga gatcgtaagt atccggatcc 240  
ctgtatatcc taaaatttct ttcgtgccac atagtgcctt tctaattgcc catagtatcc 300  
gcagtccggc cgatgatgat ctecccgctt ttctgagcgg gtcgttggcc ccgtcggatg 360  
tggaattcact tccgacggcc tctactcccc gcg 393

<210> 5373

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-A8

<400> 5373

gtaccggact agaattcccg ggtcgacggg tgcacgggg gataagtctc gttgcggtgg 60  
aagagaaggt cgtgtgagcg gccccggcaa agaggacgat ggcgctgatg aagcgagatg 120  
acgtgatgca aggctcttgg tccatcgccg tggatgagaa acgtccatct ctagcagtgg 180  
acgacgcggt cttggtaggc gctccagcat ggtggaggat ggtggcgatg gatgtagtgg 240  
aggacggcgg cgatggatgt ggtggaggac ggcggcgatg gatggggtgg cggacgaagg 300  
ctggtgtggg gatggtgttc tagcgcggaat ggtgtatgaa tgggaaaatg gatggacagg 360  
tacggtgaac catgtttttg gacgcacctg tatgaaatat gggaaagtta cgaacttagc 420  
cccc 424

<210> 5374  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-019-Q1-E1-B10  
<400> 5374

taccgatccg aaattcgcg gtcgacgggc acgggtggca agtaacgaaa ccagatagcg 60  
tatgtgaaat taattgaagc gggaccaaac aaagcggacg aaaccaagaa catcacctcc 120  
ctttaatagt aggtatagat ataggtttag agagatgaca ggaattgctc atccacatgg 180  
ttagtcgtaa aatcctacat aaaacttgta gatcactgaa tatgatatgt ttgattcctt 240  
gcaatagatt tgcgatataa aggtggtgat attagagtca tgctagttag tgactatgga 300  
ttagtagaaa tacttgtgtt gaggtttgtg attcccgaac catgcacgta tggatgaaccg 360  
ttatgtgatg aagtcggagc atgacttatt ttttgatttt catcctttgt gtggaggtcg 420  
ggattgtgcg atggttaact cctacca 447

<210> 5375  
<211> 461  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-019-Q1-E1-B11  
<400> 5375

taccgatcct gaattcccg gtcgacgggg ctatggttgg gtttcacgac cttaatgatc 60

tttagtagtt gcggatgctt gctaggggtc caatcataag tgcataatgat ccaggtagag 120  
 aaagtatggt agctcatgcc tctccctcat atagaattgc aagaatgatt accggtactt 180  
 gttatcgatt gcctagggac aaatgacttt cttggtgaca aaatccatct acttttactt 240  
 tcccgaatt tattcatagt tttattctcg caaagtactc gtagtttatt cttgcaaaat 300  
 agttcatact tgttctaggt aaagcagaca tcaagtgtgc gtagagttgt atcgggtggc 360  
 gatagaactt gatggaatat ttgttctgcc tttagctcct cgttgggctc gacactctta 420  
 tttatcaaag aaggctacaa aagatcccct atacttgtgg g 461

<210> 5376  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-B12  
 <400> 5376

gtaccggtcc taaattcccg ggtcgacggg gacttccttt ctcaccacag aattactgac 60  
 aagtgcagc agatggcacg ataaaagact ggtgattatt atccatttcg tagggctagt 120  
 acgaggggaat gggagatccc gtcgtgttta gctctcactg tgctgccctc gacatatctt 180  
 gtttttggag atctcccttg tcatttatac cttagatcaa ttttgtttgg tgaattgaga 240  
 tgttgcttgt tcgagtaaat acgatgacac acttctgaca cttccatctt acaatgggaa 300  
 ttgagctgtt gcttgtaaaa ctttgttcca tggaacaaat gtaactgtgt tccatgttac 360  
 aatgggagtt gagctgttgc ttgcaaaaaa cattaactcc acaatgagaa caacactctt 420  
 aattaacaaa aaaagctaca aaatattccc caatacc 457

<210> 5377  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-B2  
 <400> 5377

ggtccagaaa tcccgggtcg acggggactt gaagctggcc cagatatgcg gcaccatcgc 60  
 ggctgacgaa aggcgccatg agcttgccca taccaagata gtggagaagc tcttcgtggt 120

cgatccccgac tacacgggtcc tggccttcgc cagcattatg aagaacaaga tcacgatgcc 180  
 tgcccacctg atgtatgatg ggcaggagga caacctcttt gagcacttca gcgcggtggc 240  
 acagaggctg ggcgtttaca ccgccatgga ctacgccgac atcctcgagt tcctgggtcaa 300  
 gaggtggaac gtgcgccggc tcaactgggtt gtccggtgaa ggcgcgcgcg ctcaggatta 360  
 cctatgctcc ctaggaccaa ggtttangaa gctgggtggag cgagctcagg ggagcgggaa 420  
 gcagttgcct gttgttcctt tcagctgga 449

<210> 5378  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-B6  
 <400> 5378

ggtaccggac cagaattcgc ggtcgcacgg ggacttgaag ctggcccaga tatgcggcac 60  
 catcgcggct gacgaaaggc gccatgagct tgcctatacc aagatagtgg agaagctctt 120  
 cgcggtcgat cccgactaca cggtcctggc cttcgccagc attatgaaga ggaagatcac 180  
 gatgcctgcc cacctgatgt atgatgggca ggaggacaac ctctttgagc acttcagcgc 240  
 ggtggcacag aggctgggcg ttacaccgc catggactac gccgacatcc tcgagttcct 300  
 ggtcaagagg tggaacgtcg ccggcctcac tgggttgtcc ggtgaagggc ggcgcgctca 360  
 ggattaccta tgctccctaa ggacaagggt tangaagctg gtggagcgag ctcaaggag 420  
 cgggaagcag ttgccctgtg t 441

<210> 5379  
 <211> 203  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-B8  
 <400> 5379

taccggacca gaattcgcgg gtcgacgggt ggtaagaaga gtttttgcag taactggggg 60  
 tgaaaggaga aaaccaaaga agaattgtga catataccta cggcttggat gattgggttg 120

tgaaatggag atattgttgg ttaattgatt tagtgctgaa aaaaaaaaaag aattttaaaa 180  
 aaaaaaaaaagc gggcgctcca aaa 203

<210> 5380  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-C1  
 <400> 5380

cggtcctaga atccccgggtc gacggggctg gtgatcaccg ggtggggcgcc gcagctggag 60  
 atcctagcgc acagcgccac ggcggcgcttc atgagccact gtggctggaa ctcgaccatg 120  
 gagagcatga gccacggcaa gccgattctg gcatggccca tgcactgcga ccagccgtgg 180  
 gacgcggagc ttgtctgcaa ctacctcaag gccggcgctcc tcgtgcggcc atgggagaag 240  
 cacggcgagg tggtcacggc gaaggccata caggaagtca tcgaggaggc catgctctcc 300  
 gacaaaggaa tggccatgcg gcaacgggca agtgcgctcg gggaggccgt ccgcgcctcc 360  
 gtggttgacg gcggttcgct gcgcaaggac ctagatgatt tcactgctta catcacaagg 420  
 tgatcgacan aatgccatcc tggacgat 448

<210> 5381  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-C3  
 <400> 5381

cggtcagaa atccccgggtc gacggggttc agtctcttat gatactccca catattctga 60  
 tatgaagaag acattttgcg ttaatatgtg agcagttagt ggactttttc aatgccagga 120  
 agttcaggat acgaatggct taagggctgg ttaaaatgat gagttcactc aggacgctac 180  
 tgaagattac tatgaaggag gaacatatgc ttgtaagaat tgcactaatg tcaagtttcc 240  
 gctctatgtg cttaacgttt tgacgttatg catgtgttcc ctccctatgc tacttgattt 300  
 ttgttcccct aagttgtttg ctcaaaaat cactattcat atgaagtggg ttaggcttaa 360  
 atgtgctact aatatgcttc atgatgctct cattctgtct caattcgtat cgtttatgcg 420

agcatcattg aaatcatcat gccttagc

448

<210> 5382

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-C4

<400> 5382

ccggtcctag aatccccggg cgacgggagc tggatcctgc ccggcaacga ggagtacaaa 60  
ggtgtatgga atcacgcgaa gagtgatggc catgaatact aaggctctcca tgtagcgag 120  
ccagccagga aatatgccat aatcaaggaa cttgactatc cagttactat gaaggatgag 180  
acagttgtcc tgcagtttga attgaggctt cacaatggcc ttgagtgtcg acgtgcttat 240  
atcaagtata tccgtcctca cgcgaccgga tggaacacca aggactttga cagtgatact 300  
ccatacacia ttatgttttg tcccgacaag tgtgggttcaa cgaacaaggc tcacttcac 360  
ctgaagcaca cgaaccctaa gactggcata tacgttgaac atcatctcaa gtccacact 420  
ctg 423

<210> 5383

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-C5

<400> 5383

taccgatcca gaattcccgg gtcgacggga cctaagtggg ggttttattt tcttatacta 60  
acggagctta cgagttttgt ttgagttttg tgtgggtgaa gttttgaagt tttgggtaga 120  
gattcgatgg actatggagt aaggagtgga aagagcctaa gcttgggaat gcccaaggca 180  
ccccaaggta atattaaagg acagccaaga gcctaagctt ggggatgccc cggaaggcat 240  
cccctctttc gtcttcgttc atcggttaact tgactttgag ctatatTTTT attcaccaca 300  
tgatatgtgt tatgcttgga gagtcatttt cttttgtag cttttgcttg ctgttagttg 360  
taataatgtg tttcatcggt actttcagta tacatgacaa cgataccctt tgccatgctt 420  
actttg 426

<210> 5384  
 <211> 251  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-C7

<400> 5384

tacaactcac tataatgagt cgtattaagt cgacgggggtt gaattcagtt aattgtaatc 60  
 aatacaagtg tgatgatcat catatatata gcattgccca cattaaaaaa aaggaaaaat 120  
 gccaaattca atgaaggccc aaataaaaaa ttacaataaa gaaagaataa gcggccgctc 180  
 taaaggatcc aaacttacgt acacgtccat gcgacctcat agctcttcta taatgtcacc 240  
 taaattcaac t 251

<210> 5385  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-C8

<400> 5385

gtaccggacc agaattcccg ggtcgacggg ttgatcctgc tgaaaatcag aaacttttgc 60  
 acccaataaa ttagtttttg taatccaaag aaacgtgatt ttgatatgat gctttttgat 120  
 atgtactggt acacaagtgg tttagggttt cgcaatttat caggatttgt ggagttacag 180  
 aagtattcta gagttacagt ttactacaga cagttatggt tctgacatat tctgcattct 240  
 atgtgttggt tgcttatatt gatgaatcca tgagtaatat gggagggtat gaaccataga 300  
 gaagttggaa tacagtaa atttcacaaa tatgaattta gaatgagttc ataacagtac 360  
 ctaagtgggt atttattttt ttatactaac ggagcttacg agttttctgt taagttttgt 420  
 gttgtgacgt tttcaagttt tgggtaaa 448

<210> 5386  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-C9

<400> 5386

taccgatccc aaattcgagg gtcgacgggg cctgggtgga cgtgccgccc atgcgccacg 60  
ccatcgctgt caacatcggc gaccagctgg aggtgatcac caacgggagg tacaagagcg 120  
tgatgcaccg cgtgctcacc cgccacgacg gcaaccgcat gtccatcgcc tccttctaca 180  
accccggggc cgacgccgtc atattcccgg ccccgggcgt cgtggggcgt gccgacgctg 240  
ctgagaggaa cgagggcgag gagggcaccg ccgtataccc aaggttcgtg ttcgaggact 300  
acatgaacct gtacgtgctc cacaagtctg aggccaagga gccacggttc acggccatga 360  
aggcagacgc cgcacccatc gccaccgcat gataactgat acgcgcccgg acccgacga 420  
gagtattgtg agacgtgttt tattttcttt tgggcgtgcc 460

<210> 5387

<211> 446

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-019-Q1-E1-D10

<400> 5387

gtaccgatcc taaattcccg ggtcgacggg gtcgattgct gacctgacaa ttaaactgtg 60  
aaagaagggt gtagcttcaa gtaatggtac atcagttcaa gaagctgaac agcgtacaat 120  
tgaaagcata tgtaatcagg acaagacagc agcctcgctt atatgccagc tcaagaaacg 180  
tcattccaca caaatatcaa caatgccaat gatgaaagat gtccttggtg ttgtgggtac 240  
cttaggaaaa acaaatgatg ataactaag cagcctactc tcagagtact tgggaataga 300  
caatatgctt ggtctcgctt gcaagactta tgatggcata aagagtcttg aaacatatgg 360  
cacagaaggc aacattgata agaaaagtgg tattcatgga ctgggtggct caattggnaa 420  
gattctgcat gggagggtta cgtgtt 446

<210> 5388

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-D11



<400> 5388

gtaccgatcc ggaattcccc ggtcgacggg tgccaacaca aatgggtcaa tggtcattgc 60

cactcacagg cgtcacctgc ttgatggtcg aagacgaggg aagggcgaca acatctaaaa 120

ctccgcgttc cacgacgccg agaggtaggc tctctgacgc atgacaaggc tccacggggg 180

cttggtgatg ccagggtccac ctccgaatcc tgaagagacc ccaacttgag ctgctccatc 240

gatagagggtg aaacagatac cacaatacat gcacacaccc aaggcagaat acatgagctg 300

aagattagca acaacgcccc atacaagtcc aagcaaagca cctcgctcgt caccttctat 360

atacataaat attatagagg ttgtaataca gagaatctga aatagctctt cacaccaaaa 420

ccttttaaaa tagttttgtt accttttttt gc 452

<210> 5389

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-D12

<400> 5389

attccccgggt cgactgtacg gacaccgaag ccttagaagc tttcaagcat agcgttcgag 60

acgaatgggt tgccatacac ctcggtcaag aaaagccgag aacaatggta gcattaacaa 120

gcctcatgac ccgtttttgc gcgggagagg acagctgggt agcccgatgc ggcaccagcg 180

actcaagtac atccgaagtc agggatggaa acgggaaatc atgacgcagc aagaataagc 240

gctagaataa agaagacagc ccgaagagca ggacggtaaa cgccggattt agaagctctc 300

ggctaggcca gcagaagccg cctccaaag gcaacagaga tgaactgtcc agcctaaaca 360

aaattctgga ccaaatatgt tagatccata gcatecctga taaacctgca tatcataccc 420

acagagaatg ttgggt 436

<210> 5390

<211> 440

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-019-Q1-E1-D2

<400> 5390

ggtccagaat tccccgggtcg acggggccta gctaggggcg ttaaagcata gcgcttggtg 60  
 ggaggcaacc caattttatt ttgtgttttt tgtttttgct tatgttttagt aataaataat 120  
 ccatctacct tctgtttgga tgtgggtttta tgttttaatt agtgtttggtg ccaagtagga 180  
 cctatangat aacctacgat gatagttgat ttgattctgc tgaaaaacag aaactttgcg 240  
 tgcacgaata taattatgat aaattacagg aacgtgattt tgcgttgatt attttttctg 300  
 ctgatcaata aacaaattgt acagaacttc ctattttggt agaattttta gagttccaga 360  
 agtttgcggt agttacagat tgctacagac tgttctgttt ttgacagatt ctgtttttcg 420  
 tgtgttggtt gcttattttg 440

<210> 5391  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-D4  
  
 <400> 5391

accggtccag aaatccccggg tcgacgggga aggagaagaa gctcaagtca aaaaagcaca 60  
 ggaggcgaag ctattcttcc tcagaatctg acagtgaatc cgagagcgac agcgatcgga 120  
 aacacaggaa gaggaatgac cgcagaatgc acangaaaca tggccactct gactctgatg 180  
 gtgccaggag gcgcaagcac aggtcaaaga ggaggagctc agactctagc gatgagagcg 240  
 acagtgatga atatgatagc gaatctgaag aagagcgccg aaggaagaag cactcgcaca 300  
 ggaggaagca tcgccgtcac tcttcaaggt cagagtctga tgcttcagat tacagcagcg 360  
 atgatgatga gcgaaggatc accaggaagg aacacactan gagccggatg caccgccacc 420  
 gatcatcaga cgatgaatcc gangacaa 448

<210> 5392  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-D7  
  
 <400> 5392

aattcgcggg tcgacggggg tatgagatag tccttggttg atttatataa tgctctttgc 60  
 acttcacttt atcttgtgag tatggcttta tagaatgctt catgtacttc acttatatca 120  
 tttgaagttt ggaattgcct gtttctcttc acttacacaa ccgccatttg tagaatgctc 180  
 tttttattcg cttatatattg ttacagcatg gacatatctt ttgtagagag aattatactc 240  
 tcttgcttca cttatatcta tttagagaga cgacaggaac tagccattca tatggttagt 300  
 catataatcc tacatacaac ttgtagatca ttgaatatga tatgtctgat tccttgcaat 360  
 agttttgcga tataaagatg gtgctactag agtcatgcta ctcggt 406

<210> 5393  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-D9  
 <400> 5393

gtaccgatcc agaattcccg ggctcgacgg gcatgatata tttattgatt gtcttcctta 60  
 tgtgtggagg tcgggatcac gcgatggta actcctacca acccttcccc taggagcatg 120  
 tgtgtagtac tttgttttga tgactttagt atttttgcaa taagtatgtg agttctttat 180  
 gaataatgtt gagtccatgg attatacgca ctctcaccct tccaccattg ccagcctctc 240  
 tagtaccgcg caactttcgc tgggtgcatta caccacccat ataccttccct caaaatagcc 300  
 accataccta cctattatgg catttccata gccattccga gatatattgc catgcaactt 360  
 tccaccgctt catttatgac acgctccatc attgtcatat tgctttgcat gatcatgtag 420  
 ttgacatcgt atttgtggca aagccaac 448

<210> 5394  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-E1  
 <400> 5394

gctaccgggc cagatatccc gggctcgacgg gcatatgcat gaggcaacag ctgatgccgc 60  
 cgcgtcctgt atctgccagc ccttcgtagg tcctggggcg tataagtaca tttatatagc 120

acctaggttag taaaacagat ggtctagccg atgtctactt ctagtcctat ctcaaattatt 180  
 ttctttttctc tctcttccat ctgtttctct tttctgagat gagaaaataa aaaccttcag 240  
 cagtgcctagg cgggcccaac tctccttgtc tctctctctc tctccctagt ttttcctcca 300  
 gccagctgg gcctaccagg gcctgccggc ccatccccta accaaggccc gcctaaaccc 360  
 ttctaaacct agctgcacag gagccatcgc tccatcncct cacagccact cgatcccaac 420  
 tctttgcccgc 430

<210> 5395  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E10  
 <400> 5395

gtaccgatcc agaattcccg ggtcgacggg ttgatcctgc tgaaaatcag aaacttttgc 60  
 acccaataaa ttagtttttg taatccaaag aaacgtgatt ttgatatgat gctttttgat 120  
 atgtactgtt acacaagtgg tttaggtttt cgcaatttat caggatttgt ggagttacag 180  
 aagtattcta gagttacagt ttactacaga cagttatgtt tctgacatat tctgcattct 240  
 atgtgttggt tgcttatttt gatgaatcca tgagtaatat gggagggtat gaaccataga 300  
 gaagttggaa tacagtaaatt atttcacaaa tatgaattta gaatgagttc ataacagtac 360  
 ctaagtgggtg atttattttc ttatactaac ggagcttacg agttttctgt taagttttgt 420  
 gttgtgacgt tttcaagttt t 441

<210> 5396  
 <211> 324  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E11  
 <400> 5396

gtaccggtcc agaattcccg ggtcgacggg acgtcagtaa ttagcacaag gcgagtgatg 60  
 ggcgccggtg cgccggcgga aactttgggc cggtcctttt taaaccatta gattaatgcg 120  
 ctgatgagcg ttagataacc acgccaaagt catcgtctcc acgcacaaat tctccctacg 180

cggaaaaaagt ggatcgtgaa cgaagtgcgg cccacacgca ccagctgttg tgccaccggg 240  
 cgtgcgtcgc cagctccaac accatcagcc cccatcgtcg ccgtcacaga cctccggcat 300  
 cacgggttcg catcacctca tcgc 324

<210> 5397  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-E12  
 <400> 5397

gtaccggtcg cagaatcncg ggtcgacggg gatgatgagt acattggcct gaggtccgga 60  
 gtccgtcagc cattggtgaa taagcaaact gctaccgatc ccagggtgcc caatcttgac 120  
 taccgtccaa tcaggaacga tgcattggagc caaagaatga gagacaagta tggggtggat 180  
 tcctttgatc caaacagggt tcaacaggcg acgatatctc ccgcagaaca tagaaacaga 240  
 tgcacaatcc tctgatgctt ggtcgatgca gttcagtacc ggtctccgaa ttacagcca 300  
 gctgtgcaat aacatcgact cgcattgtagc atgtggctgg gtgatctgat gtttccaagt 360  
 tgtgttgatg gtggcgagcc cttgcaatcg cccgtcgtag ttctttcagt tacatactca 420  
 gaaatctctg catctttcag tctttgcaat aattgaaact aa 462

<210> 5398  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-E2  
 <400> 5398

cggtcctaga attccgggtc gacggggtcg cacagaggcc aggatatatt cgagcatggt 60  
 tggttgatcg atatcattca ttacatgttg ggctgccgtt ttccgccctt ctccggaata 120  
 aacgtgtact ttatcagaga taaaaaaaaat aagagtacag acgctccacc atgcggttct 180  
 agtagtagta ctactcgtac taccgcgctt ggctctttgc ctcttcgtga agtcgaacaa 240  
 tgatggtact ccgcattgtg ggtactacag tgtatgcctc tgacaatctg acaccgaatg 300

gactgatgca tgtccaccga gggtaggttg cattagtcaa aaggcgtaag cgagcttcac 360  
 cttgtcctgc aagcttctcc tcgttctgcg agttgacggg acacaccana aagtagtgct 420  
 agtccatact ccttccttt 439

<210> 5399  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E6  
 <400> 5399

attcgcggtt cgacgggttc agttatgtag tgggcatggg cagtgtactg taggcctgta 60  
 ggtcttcctt ggcagtagca ctttgcaaaa aggatcctta gtcagttgca acccttaatt 120  
 aagtactcca acttagcata agctctgttc ccagtcctta ggtagaata atcacagagt 180  
 gttggccaag gacatgtttc tttgcttttc tttctcttta caagtcattg tcctctgatt 240  
 tactccaact attttcacca acgcctgctg gagatgttgg atgatgtagc tgacactgct 300  
 gtgtgttggg gctctattct ttgggtagag atgtgttgcc tgcttgagg atgcttgaag 360  
 cagagtatcc cggagactag cagatatgat gatcgaaact tttatcttag ctttctgtct 420  
 ctactacttc ctgatg 436

<210> 5400  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E8  
 <400> 5400

aattcgcggtt tcgacgggca cagaggtatc attgataccc gtgaaagatg ttcgtacctt 60  
 tacgtcagta ggtgaaacaa tatctagcca atattttgat gacttgact ggccattctc 120  
 catcccaact ccttcaccta cattatcaaa ttcattcattg tcgtccctct tattgggttt 180  
 gtacagcaca ccttccatgt tcaacctttc cattaccatc taaaaacaca aatgaaacac 240  
 gataagtagt tgaacaatta aaccatgttc aatacaactt ctaaattacc tgtgcacatc 300  
 tttgggggtat attgagaacc tctttgtgaa gcagctttat gtatgtcatc acacgggtcca 360

tactacaagt catgttcgat gaaaccgtgg acgtgcttgg ctttctactc ctgacaccac 420  
ctttc 425

<210> 5401  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-019-Q1-E1-F10  
  
<400> 5401

gtaccggtcc agaattcccg ggtcgacggg atgttggaac gttaaatttg gagggtttaa 60  
ttgccaatga tgtggtgtct cccaaccat ggttgaattg gccggttccc atatggatca 120  
ctccaagttt taataagatc cacaaataac taggtttcca gtataaggac gttactggga 180  
agggaatgct cttgcttctc atcaataatt tactacagaa ctattctgac tggacatata 240  
cgttgagctg ttgtttttgt tagggcaagc aagcagaaag aattaattta tctggtggtc 300  
agcctggcga aggatttggg aaaatgttcc ctagggaag gagaaaataa tgtttatggt 360  
ggctgaaatc gaagttgctc tgcgaagaag accagatata agtggaata gaatgctctt 420  
gcttctcacc aataatttac tccagaact 449

<210> 5402  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-019-Q1-E1-F11  
  
<400> 5402

attcccggtt cgacgggtcc gccaacggcc agccgaatcg acggagaagg aatggcttca 60  
accaggggag acgtaggatg ggagttcgac caaggcgaac tgatatggag gatagtgtac 120  
ggcgaactgt ctatgtctca gacattgatc aacatgtcac tgaacagaag cttgctgagg 180  
ttttctcaaa ctgtggtcaa gtggtagatt gccgtatctg tggatgatcca aactcagtga 240  
tgcgttttgc ttttatcgag ttcgccgatg atgtcgggtc aagagcagct ctaacgcttg 300  
gtggaaccat tcttggtttt tatcctgtca gagtctgcc atctaagact gcaattttgc 360  
ctgtgaaccc caaatttctt cctcgaacat aggacgagaa ag 402

<210> 5403  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-F4

<400> 5403

gggtcgacgg gccagcagag tgggtgctgca atcatcaaag cgaggaagct ctccagtgct 60  
 ctctctgctg ctagctcagc ttgtgatcac atccgtgact gggttctggg aacccttgag 120  
 ggaacatttg tttccatggg tgtgtactct gatggttcat acggtgtgcc tgctggtctt 180  
 atctactcct tcccagtaac gtgcagtggg ggtgaatgga caattgttca aggtctcccg 240  
 atcgatgagt tctcgaggaa gaagatggat gcgaccgcc aggagctgtc ggaggagaag 300  
 gcgctggcct actcatgcct cgcgtaaatc cacattggaa gggcagctgc tcctctggat 360  
 gttttgaata aatgaaacct tccgctcctt agaaactctc gtctcccacc agaacagccg 420  
 cacatcgcca tgcatt 435

<210> 5404  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-F5

<400> 5404

gtaccggacc agaattcccc ggtcgacaac taaccaaagc atgaagaaag aagacatacc 60  
 ttcgagcatg togtcaatca ccgagtagcc atttgatagg tgcttctccc tgctggggcca 120  
 gctcgagtgc tgggactcga acttggcctt gagctgctcc tcctcggcct tcagaagcca 180  
 gacctgctcc atgtgccggg ttgcttggtc cgccagctcc gtctcgagcc ggtcgcgcgc 240  
 catggctgcc tggtgcatt ccagctcctt agcctggagt tggctctcga gctcatgcac 300  
 gcgggtcctc agccggggcg cgacctctgc aaaagcaagc aagaatcatc aacatctaca 360  
 tcagcgaaaa caagaagctt tcagagaaga ttctgcctga ctactcaaca gtcggcccga 420  
 atctcggngg gctacaccag ttggtgcgct 450



<210> 5405  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-F7  
  
 <400> 5405

taccggacca gaattcgcg gtcgacgggg gagaacatga gtattaacct agatcatcct 60  
 aaactcagtgt gtgaaacaac tgttcaaaat gctgttacag aagtcgctgc catgggttggg 120  
 gagaatgtaa aactcagacg aggtttcatg ttgtccacga ctggacatgg tgtcgtttca 180  
 tcttatctgc atacctgtcc tcagccaggt ttgggcccga ttgctggatt gattacatta 240  
 gaagcagaag atagcagtgc ttcccttgat gctctcaaga gagttgggtc gtctatcgca 300  
 atgcatattg ttgcagcaaa accattattc ttatcaaaag aattggtttc tgctgcagct 360  
 ttagaaaatg aacgtgacgt gctccgaact caggctgaaa gttcaggtaa accccaaatg 420  
 gccatagaga anatggtgga aggccgat 448

<210> 5406  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-F9  
  
 <400> 5406

gtaccggtcc tgaattcccg gtcgacggg tacttcacac acttttgtgt tttgtctaata 60  
 tgcaggtgta tgggacattt gtacaatcca catatgaaga taaggaagaa agagatgttt 120  
 atttctgtgc caaaaagttc tctcacgtca cttttggccc aagagaagat agagtccaag 180  
 tctctcacgt tctggattca gattcggact gcacagacac acctgactca aaacgcacac 240  
 aagtgtttca tacggactcc gaattgggtg attctatattt tgttggaac tagatttcgt 300  
 gaactttcca acccaattgg aatcaccttc aaattcgtcc ggagcgttga gttgtggacg 360  
 aaacaatgtg atgctgcagc agaatccgag tcaaactaca agtccaaagg tgtaacatca 420  
 cct 423

<210> 5407  
 <211> 279  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-G1  
  
 <400> 5407  
  
 ctaccgggtca agaattcccg ggtcgacgac gactcctact acaccggagg tgcctactac 60  
 tacgtgcagg ccgctgacga cgaccaggag tagtttagga ggatcccagg caggaggcct 120  
 gcgcctcttt cgatctgtat ccagtttgt gctagccatc ttatggcaac ttgtttaact 180  
 tatgtctgta ctcagatatt gttgcttccg ctgactcgtc tatgatcgag cacttgatt 240  
 cgagccctcg aggcccctgg cttgtattat gatgcttgt 279

<210> 5408  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-G10  
  
 <400> 5408  
  
 attccccgggt cgacctccgc ggacgaggtg cagcgcatga tggcggagat cgacaccgat 60  
 ggtgacggct tcacgactt cagcgagttc atctccttct gcaacgcaa cccggggctc 120  
 atgaaggacg tcgccaaggt cttctgaatc agttcatttc acctcagccg tccgatccag 180  
 gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc 240  
 ccgatccagc ctcagcttca cctgaggccg gccctaattt tgtttgatca attttttgct 300  
 actagtagta actagtgatg atcactgttg caccatttat ttattttata tcgtcacaac 360  
 tttccagtgt ttcttttctt tctctacctt tttgtcgatc gtcggctcca gtcgatcga 420  
 acgatccatg ctgctaattg tttgtgta 448

<210> 5409  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-G12  
  
 <400> 5409

ttccccgggtc gacgggggat tctcaggtgt ttcagcaata ggttcactag aagcatgcaa 60  
 agtcctatca tttttctttt tcttctttt agaaggacta ggtgcctcaa tattatttct 120  
 ctgagaatct tgctcaattc tattaggggtg gccttcagga tacaaatgtt cctgagtcac 180  
 tctaccagtt ctagtagcca ctctaacagc ataatcatta ttcttactat tcaattcatt 240  
 gagcaaatca ttctgagctt taagtacttg tctacttga gtggtaacca tagaagcatg 300  
 tttagtaatg agtttaagtt cacctttaac tctagacata taatcaccca agtggttcaat 360  
 catataagca ttttgtttta attgtctacc aatataagca ttgaaatctt cttgcctaac 420  
 cataaagtta tcaaactcat ccaaacat 448

<210> 5410  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-G5  
  
 <400> 5410

gtaccggaca agaattcccg ggtcgacggg aaagaggatc tagctgggtg gcggacggag 60  
 taggggtgtgg ggtttcatca tgggttttcg cggcctcggg gtacgaatgg gtgggcggat 120  
 gggatggtag tggggaacca tggcttagag acgcgcttgt ctgaaatgtg gggtaagtta 180  
 cgaaagtacc cccaccgatt tgaggaggtt ctttcggttc aggggtacca cgggcatttc 240  
 gcgtgtcggg atttcacagg aggtgggagt tttcgcgcgc gttgtaattt cggaatagca 300  
 aggcacgggt tgagatggag ggagttgtcg gagcacaaca agacaaagat atatcttaaa 360  
 tatttcgggc taacaaggcg cgggttgaaa tttcgggaca agcctaacat gtacntgtac 420  
 anatcaatgc gccctacana tgtc 444

<210> 5411  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-019-Q1-E1-G7  
  
 <400> 5411

attcccgggt cgacgacgag gcgcatacgg tgactttgta aatcttaaga tgatgtgcca 60  
gctcagtctc tcgaaagtgc ttataaaaat aggggtgtgtg tgcattcata ggggtgaatg 120  
tatgtgcgta tgtatgagcg cttgcatctg ataaaaacaa ctactctcac gacaactcat 180  
cataatgggtc aagggcgaga cggtacacgc tccgcactaa gaaaatcctg cgcggatcgg 240  
tacgacgtga tgtattacac cactcaccgg ctaaccgggt cagtgataac tatcaacatg 300  
gaataacaat tgaagttatc actgaccgtc cgctagctga aggcattgtgc aacaaagaat 360  
aaacaacaac acacaattac agaggcaaca cagaagacat gaagacatgc acatataaac 420  
attggtgaac attcgattat c 441

<210> 5412  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-H5

<400> 5412

ggtacggaca agaattcccg ggtcgacgac gacggggggc tgctgctgcc gccacttccc 60  
gagaacaacc gaccgggtgca gtcccctgaa gaggttggcc ggctggattg cgtgccagcc 120  
atcttcgatg agtcccagtc ccgggacaag atgtgtgttt tctccgtatc agcagcaaga 180  
gtttctctag atgaactgaa tgaatcagca gtgcttttgt gcctcgaatg gtctccgtgt 240  
ccgtggcgac cggagctcga gtttcttctg gcaaattgct ccacggcacc ggtgaatcta 300  
tcccggatct cttgtcctac tgaaagtctt tctgttctct caacagatgg cccaactcca 360  
gccaatcttc cactcggttg tcgaacaagc ttgttactgg aactcatatg aggatacttg 420  
agtgcggtcc agtcaaatac ataatcaaa 449

<210> 5413  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-H7

<400> 5413

gtaccggaca agaattcgcg ggtcgacggg agacttaggg ccaggcagat gatgtctggt 60

gatgaactta tgatgtctac agaaggtcgg agctttgtgg atggtggcat gaaggagata 120  
 gaagctggag gtagaggata cagaagaggg gcaaagtatg atttcatggt ttatggacag 180  
 gacaactcaa tggacaggag gagctccttg gaccccttg ccgaggcgca ttacaagaga 240  
 cccactcctc tagaggaaaa gaagaatgtg cacagtatgg gcgatgagtc cttcatgata 300  
 cctgttacct ccaactcaca tgataacctt ggagcagccg gccgtactgc cattgacatt 360  
 gatgccgagc ttggctcaag tgttcagaaa acatcagatg ctaaggctgg cgctgaactt 420  
 ttctatg 427

<210> 5414  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-A1  
 <400> 5414

ttcccggtc cacggggagt gcgacaaagg tgccatggcc gccatagccc agtctgcgcc 60  
 ggattctgtg ctgatgacat tggcggagtt tgagacgaca agagaggcgt ggaatgcact 120  
 caaagagatg aggattgaat aaaatcgtgt cacgaaggct cgggcacaag tgctgaagcg 180  
 ccaagttcac aagttgcaga tggagaaaag tgaatcgggtg aacgactatg ccatgcagat 240  
 ggagaaagct cgacgagacc gagattgtgg agaagttttt cagttcggtc actgataaat 300  
 tcacgtacat catcgggacg ctcgagcagc tttacgatat cgacgacatg accataacgg 360  
 aagcgatcgg atgcttgccg acgtgggaag agaatgctcg tggatgtcgg aaacgcaaag 420  
 gaggaggtga tgaccaactc atgtactcac gcgc 454

<210> 5415  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-A10  
 <400> 5415

ggtcctaaat tcccggtcc acggggagta gtttaacaca gaccttcggg tgcctagtta 60  
 ttagctagat ggcttcttct ctctcttttg atctcaatac aaagttctcc tcaatcttct 120

tggagatcta tttgatgtaa ctcttttagc ggtgtgtttg tcgagatccg atgaattggg 180  
 ggtttatgat caagattatc tatgaacaat atttgaatct tctctgaatt cttttatgta 240  
 tgattggtta tctttgcaag tctcttcaaa ttatcagttt ggttttgcct actagattga 300  
 tctttcttgc aatgggagaa gtgggttagct ttgggttcaa tcatgcagtg ctcgattcca 360  
 gtgatagtag gggaaatgac acgtattgta ttattgccat cgaggataaa aatatgggg 420  
 ttatatcata ttgcttgagt ttatccctct acatcatgtc atc 463

<210> 5416  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-A11  
 <400> 5416

ggtccaggat tcccgggtcc acggatcacc ggaaaacgac atcctccagc tcctttttca 60  
 attcctcaca acttttcttg aaagcagcca tggattcctc cacctcctgc tcgcactcga 120  
 tccggagctt cctcaagtca cccatcagtt cctcgacgac cgctgtcagc gtcattccca 180  
 aggcactact ctgctcatgc agcatcttcc tgccaacggc ctctctcttc tcgccgaacg 240  
 ccttgaggat cttcgcattg tcatgatga gttgctcaat gaggcgggtc tccttggtcaa 300  
 ccgaggcacc tctgatcttg agcagcttca tcaagccgtt gaccagctcc tgctgcttag 360  
 tgacgccagt gagaatgtca tcgtccccgg ccaaagactt ccggaatgcc agctcatcgc 420  
 gatggccgac gtcgcgagtg cgcttgtgag agccctcgcg tgcccg 467

<210> 5417  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-A2  
 <400> 5417

cgctgccat gtaccgggtcc gagattcncg gatccacggg ggggtgttcaa tctttcgaag 60  
 atgctcatag ggatagggta tgcgttcata ggggtgagtg tatgcgtgtg tatatgagca 120  
 ctctatttg taccgtgtta aaaaaagatt ccaagggtccc aaagataatg aacttgatta 180

aaaatttgtg tatataaatt cattcttttt agataaaagt ttgaatttaa tttggttggt 240  
 gtgcgcaaaa cctaggctat agtgcaacgc ctagacgaca catgggagcc tcagcagcaa 300  
 gccactgtga tggactcttt ccaacaaaaa ataaatctaa aatctttgtg aacatataat 360  
 ccaaataatca gataataaac ttgatataac agattaaagg taattacaca ctggtgctag 420  
 aacttgccat gaatgtgcac tttagtgcct gaacttgcaa aatacattta 470

<210> 5418  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-B10  
 <400> 5418

ggtcctagat tcccgggtcc acgacggcct aaacgctgct cctcctcccc tttaccgacg 60  
 gagggggata cgtccggatc tgtaaccagc ggtgaggata gaaagccagt gttttttgaa 120  
 gggagaaaga cagtgttact acccttatct tgttttagatc tggagaggat gagagtgtgt 180  
 gaatagagca atcctagcaa gcaagcgoga aggctccggc ctatatatac gtagtggggt 240  
 agttttcctt tttcactcca tcaaaacaat cgttttaaat tgtgtactac tacatgccag 300  
 gtcgcatttt tttagtgtgt gattgttttt tgagatagct acccgcttgt tccaagtgg 360  
 gttacgggtgt gccaaagtcgc actttgtatc gttcaagtct ggtactacaa gtccctccat 420  
 taaatgaaca acaaccctc gtaaaattgt gagcaagcca c 461

<210> 5419  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-B11  
 <400> 5419

ggtcctagga tcccgggtc cacggggaga tctaagagga gaaccaccgc ttcgagaggg 60  
 gtcgtctgga gcggtagagg gcgttcgagg tgagcatcgc tgaaggtgca gcagcggcag 120  
 gcaccgtatt gcagtagtct agttcgtcag tagcctcctc ctcctcttcc tcttattgag 180  
 cgcgcttggc agaggagagg ctaccggaaa tagtaciaag cccctccgta gtagtattta 240

ggggctatatt tgttcagttc atctgactat agatgtggtg gaactgtaca acatacttaa 300  
aagtagctag tatatatagt tgaactagct atttcagtac gtggttggca acaattgggg 360  
aaaaattcgg tcgattcagc tataaagttg aacggttttt aaaaattaag cacgactact 420  
taatctatga atggaatcta tgcttaatta ctgaatttta gttgcaaa 468

<210> 5420  
<211> 491  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-B4  
<400> 5420

cgccgggctg taccggcccc agattcncga ggccacgggt aggactacaa aatgaaatgc 60  
tcttgaagac attttctctt ggtctggatt tgggcatttt tatatcgtgc agtccgcagt 120  
ttacctgcat ctttcgcttt gaagagtgtg catttgctat gtcattccacg agatttgttc 180  
ttgtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagaa aaaaaaaaga aaaaaaaaaa 240  
aaaaaaaaaa aatgaaaaaa aaacaacttg gaaaaaaaag aaataaaaaa aaaaaaaaaac 300  
gggccgccca aaagggttcca accttagtta cccttgaatg gaaattcaaa acccttcaaa 360  
agggtcccca aaattcaatt cacggggcgt cgtttaaaaa catcgtgacg ggaaaaaccc 420  
ggggggtacc aaatttaacc cccttggaag aaatccccct tttccaagcg ggggttaaaag 480  
cgaaaaggcc c 491

<210> 5421  
<211> 467  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-020-Q1-E1-C11  
<400> 5421

ggtccagaat tcccgggtcg acgggatcca tctcatcttg gaaaagatct cttgattcag 60  
tgaagcaatg aaactgacac cataatattt tgaattaaaa tcagaaatca ttttcctctc 120  
ttggctaagt aaaaggaagc ttgtatgtaa aacaattatt tggttaactga tatcatcaag 180



aaagctgtgt ttctatcatg ttttcacctg catacgtgat gcatagcagt acaccattat 240  
gtaagaacta gagctcgaat ttacatgagt ccattagtct ccagatctag caatggctcc 300  
tataagtatg caattcctat aatgcagtta tattctagac aaggctcctga taaagaactt 360  
gattactacc aggataacaa ggtgctaata aataaaaaata gaaggcgcca atgaactaaa 420  
ataatagaag gtgctaata tttatgtttc ttaactaaaa tgcaaaa 467

<210> 5422  
<211> 474  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-C6

<400> 5422

ggctcctagat tcccgggtcc acgggtcttt cttgtaaaac atcattatct tgatttttct 60  
tgatttcatt tcctttcttc tttgagggca ccaatgctgc taatacattc cttcatcgaa 120  
aacttccttt ttgtgaaact tgtactatta tgtgcttatt attgtatatt ataataagct 180  
tattgtatat tataataagc acaatttccg tcttaattga gtgcaaactg tgccttcttg 240  
tttttttcat gttctttctt cttaaagggt aataccaatg ccattaattc attccttctt 300  
agaaaacttt gttattttta tttgtttcag catttgtttt attttctttc tatgagggta 360  
ataacactcc cactacttca ttcccttctg agaaactttc tttgcgaaaa tttcattatt 420  
atatgcttat acttgcata tatanaggct acattttttg tgtaaactgt gtgc 474

<210> 5423  
<211> 479  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-D11

<400> 5423

cgcttgccgg taccgggtcc aggattcccg ggtcgaccga ttttgacatg ggaggagtcc 60  
gttaagagag acctgaagga ttggagtatc gacaaagagc tagctatgga caggggtgag 120  
tggaagcttg ctatccatgt gccatagcca tgagttggtt gcgagatctt atgggtttca 180  
cctctagcct accccaactt gtttgggact aaaggctttg ttgttgttgt tgtttcattt 240

ttttatgaat gtactgttca tgagggtgta ggggcacccg ggagctgtta gacattttctc 300  
gaaactgtat tgattttttt attttaagat ttggcttaat ctgaccaatt agattaacac 360  
attctttttt aattgctatc agaattgaga gatccagcaa agatatatgt caaattgttt 420  
attgtctagc tattgggttc tattgatatt catgtcaaat ctctattgat gatcatttt 479

<210> 5424  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-D12  
<400> 5424

ggtccagaat tcccgggtcg acgggtaata tgctaggtat tcaagactag taaaaacttt 60  
cttatgagtg tgttgaatac taagagaagt ttgatgcttg atgattgttt tgagacatgg 120  
aggtagtgat atcaaagttg tgctagttga gtagttgtga atttgagaaa tacttgtgtc 180  
gaagtttgca agtcccgtag catgcacgta tggtaaactg tatgtaacaa atttgaaaca 240  
tgagggtgtc tttgattgtc ctcttatga gtgacgggtc gngacgagcg atggctcttt 300  
cctaccaatc tatccccag gagcatgcgc gtagtgcttg gtttttgatg actttagat 360  
ttttgcaata agtatgtgag ttctttatga ctaatgttga gtccatggat tatacgcact 420  
ctcaccttc catcattgct agcctct 447

<210> 5425  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-D2  
<400> 5425

attcccagat cgacgggacc tgggaggtgt cgctgccggc ggaggaggtg ccgcccagac 60  
tgcccagacc ggccctcggc atcaatttcg cccgcaacgg catgaaccgc cgcgactggc 120  
tctccctcgt cgccgtccac tccgactcgt ggctcctctc cgtcgccttc ttcttcgggg 180  
cgccgctcac cgccaacgaa cggaagcgtc tgttcagcat gatcaacgat cttccaaatg 240

tgtatgaaag tatggttgac aggaagcaca gggacaggtc tgggtgtgat agcagtggca 300  
aatccaggca ctcatcanag ccaaagcagc gaactgatga tgtccgcaa agaactccag 360  
ggcagttgcc cgagaagaag acgaggacga nggacaagaa gaacacagcg aaa 413

<210> 5426  
<211> 482  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-D9  
<400> 5426

cgctgcagt accggtccta gattccccggg tcgacgggaa gaaggacggc gagaagaagg 60  
aggagggcga cggcaagaag gacggcgacg ggaagaaggg ttgggcggcc tacatcgagt 120  
ccgtcggccc ggccaaggag cccgagaaga aggaggagaa gaaggaggag gccaagaagg 180  
agggcggcga cgccaagaag gaaggcggcg acggcggcga cggcaagaag gacggcgatg 240  
ggaagaagga cggcgacggg aagaaggacg gcgagaagaa ggaggagggc gacggcaaga 300  
aggacggcga cgggaagaag gacggcggcc tacatcgagt ccgtcggccc ggccaaggag 360  
cccgagaaga aggaggagaa gaaggaggag gccaagaagg agggcggcga cgccaagaag 420  
gaaggtggcc ccgtgtcgt tncgcacca catgccgctg ccgcaccaca tgccgccgcc 480  
ct 482

<210> 5427  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-020-Q1-E1-E11  
<400> 5427

cgctgcggt accggtccta ggattccccg gtcgacgggg acgcagaaga tcgtgatccc 60  
gccgggcaac ttctggtgg gcgcgctgga gctgtcgggc cctgcacct cctccatcat 120  
catccggctg gacggcaacc tctcggcac cggcgacctc accgcctaca agaagaactg 180  
gatcgaggtg atgcgcgtgg acaacttcgc catcaacggc cacggcgtca tcgacggcca 240

gggccccctc gtgtgggaga agaacatgtg cagcaagcac tacgactgca agatcctccc 300  
 caacagcctg gtgctggact acgtgaacaa cgcgacgac cgcgggcatca cgctcaagaa 360  
 cgcaaagtgc ttccacctca acctcttcaa ctgcaagaac gtgctgggtgg agaacgtgga 420  
 gatcacggcg cccgggaaca gcccacacac ggacggcatc cacatggggc actc 474

<210> 5428  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-E2  
 <400> 5428

tggtacgcct gccatgtacc ggtccgaaaa ttcccagtc gacggggtgg cgaccttgag 60  
 cagcaccagt tctgggcggc ggcggttttag gcagcggctg cgacggcgat tcccgcattg 120  
 gcgggtggtga ttgaggctcg cgggttgcctg ttgagcctgg tggcggctgc gctgtgaact 180  
 ccagttcatc ctttactgtc aacgttacct tcagcccggc aagttcccaa gttggcggaa 240  
 ataaaagagc aaagaaagt ccagcaaagc taccagacta gtgcttggtt gttgctgtct 300  
 gttcttatgt cagaccatgt gagaattcat gggtatcgtt gattgtaagc tatattcagt 360  
 attatttccc ttcccatctt agtactttgt cagactatgt tcaactaaat tgggctcaga 420  
 acatgttcaa ctaaactcaa tacaatgccc cc 452

<210> 5429  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-E3  
 <400> 5429

cgcctgcccc tacgggcccc aaattcncga gtcgacggga ggctgccag cccaatcagc 60  
 atcagagAAC gccgaaaggt cacaagatgg tgcagactga aggagcagac catacgaagc 120  
 agtagaggaa acataacgca ggatgcgctt aactgccgag agatgagtgg tacgaggtgc 180  
 atgcagatac tggcacacac ggttgactgc ataagagaca tcaggtctgg tgatagttag 240  
 atattgcaga ccaccaacaa ggctgcgata ctcagtggca tcatcagtgg aaagaagatc 300

ccatcaaggg cagacaaccg gtcagtggca gacatcggag tgatagcatg tttgcattgg 360  
 agcatcccag cacggcccag caaatccgtt gagtactttt tctgactcaa agtccaacca 420  
 gtagaagacc gtgacacctc caatccaaga aaataatgca aagcacca 468

<210> 5430  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-E5  
 <400> 5430

taccggtccg acattcccgg ggtcacggga tgaccgcaat gttctcctac acccttatcc 60  
 tgcagctgct agccacgctc caaatctacg cagtgccatt catgactttt gtcacaacaa 120  
 ctaagatctt cacgtacatt tgtcgctcct ttagatcct gccacaatc agttctgaca 180  
 tctattattc tgacaattct tctataaata ttattttcat gccacaattc aacttcgcgc 240  
 ttcgtagaag tggcgcgcca ttaaataagct caactactaa cgtcgcacca caccaacggc 300  
 gcgctataat aacttgctga ccacgttcct agtgtaacac cgtggatgtg gtgcgccatt 360  
 ccttttcgct ca 372

<210> 5431  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-E8  
 <400> 5431

ccggtcctga attcccgggt ccacgggtac cacactatgg acttctgcta gccagagtgg 60  
 ccggcctacc tacttcagtg atcgacaccg cgaccagcat cacttcacgt atcacagagc 120  
 aggaaatggg taggatggac gcgaactgcg tgcagtacca gccgctgagg atggcgtacc 180  
 aggccgcgca acggctcctc tgcttgaagt actcaaacca aggggacgac tacatccgtg 240  
 aagcattgca ggacctcaag gagagttacg ctgcaggcaa tttgatatga aacaacaaga 300  
 gattacgtct ccaggaatct gatagaggtc tgtttgtagg tctatggccg cagaggatcc 360

atcagtctta tttccatccg ccgctgtaat tatatattag tcagagtccg atactgaaag 420  
 tggcgatanc ggagagatcc cttattacac acagcacacc tggagt 466

<210> 5432  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-F10  
 <400> 5432

cggtccagga ttcccgggtc gacgggacgg tggcgcaagc ttggagctgc tggaaggcaa 60  
 gccctccca ggtgttcttg cccttgacga ggcgtagggt gattcggttt cacctatcag 120  
 cttgctgctg gccctttgtt tgggatctca tcttggtcta acgctggaac gttatatgtc 180  
 ccaaggaaac tttgagatag gcttgtcgcc aatttttgtc agtaaatgag tcgtgaataa 240  
 ttatcaactt gctctgtgcg agtgaagtga tgtgactgga atttaacgta cccccgtgga 300  
 tgtgtatggg ttttaagatct gcatctttgt gtgctgcttc cttctgtgtt ttttgctttg 360  
 cttattttgg aataaatttt tgct 384

<210> 5433  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-F11  
 <400> 5433

cgctgcagt accggtccta ggttcccggg tcgacgggat cgactgcac gagaccatcg 60  
 tgtgccactg atcagcgagt gaatcacgag ctgctctgct cgtgggtccag ccgcgcgtgt 120  
 gtgcgagact aattatttct tcgtctgac accgtatgat cggcgtgttc atttggtgtt 180  
 cacttgctgt tctgactgaa gccgcgtgtt gtacagaata cagagctatg aagaaacca 240  
 tttcgccgtg attatttgga taacaaaaaa acaaaaaaag aaacgcaaga ggcgcaaagc 300  
 gcaagcagac gcgggaaaga gcacaaagca aaagacaaaa gaaaaaaaaa aaaaggggcc 360  
 gctctaaagg tttcaggctt acgttcccgat gaatgcaact tcatacccct tcaaaagggt 420  
 caccaaaatt caattcacgg gccgtcgttt taaa 454

<210> 5434  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-F2  
  
 <400> 5434

acgcctggct gtaccggtcc gagaattccg agtcgacggg gacgcagaag atcgtgatcc 60  
 cgccgggcaa cttcttggtg ggcgcgctgg agctgtcagg cccctgcacc ccctccatca 120  
 tcatccggct ggacggcaac ctctcggca ccggcgacct caccgcctac aagaagaact 180  
 ggatcgaggt gatgcgcgtg gacaacttca ccatcaacgg ccacggcacc atcgacggcc 240  
 agggccccct cgtgtgggag aagaaccagt gcagcaagca ctacgactgc aagatcctcc 300  
 ccaacagcct ggtgctggac tacgtgaaca acgcgacgat ccggggcatc acgctcaaga 360  
 acgccaagtt cttccacctc aacctcttca agtgcaagac ggtgctggtg gagaacg 417

<210> 5435  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-F6  
  
 <400> 5435

cctgcaggaa ccggtccgaa attcccgggt cgacagggac tggcctccaa gggccaagcc 60  
 cctggagaga tcgtaagtat ccggactccc gaataacttc atggtttttc tttttgccac 120  
 ataatgtctt tctaattgcc catacaacct tgcagtccgc ccaaggatga tcttcccgt 180  
 tcgtcgcatt ggtccttagg tgcgtcggat atggattctc ttccgactgc ctccaccccc 240  
 cgtgatgcgg acgatgccga ggtgggatcc cggaaggta cccactcgga ggaggaggcc 300  
 ccggaggtgt cgctggacaa cctcccggac tttgcaccgg actcggcccc ggaaccata 360  
 gtggctccgg agtcggggcg gcgaccctt cgtaagaagg gcaaagacgt gacg 414

<210> 5436  
 <211> 481  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-F8

<400> 5436

ggctccagaat tccccgggtcg acggggagtag ttagtgaaat acgtattgtc ggctataaag 60  
gagaagtggc ctgagagcaa tagatggaat accatctacg tacagcagga caatgctaag 120  
actcatataa aaccagatga tccacttttt ttgcaggaag ctgctagggg tggttgggat 180  
attaggatga tataccaacc acctaattct cctaacacaa acatattaga tcttgggttg 240  
tttgctcaa ttcaagcaat gttccataga aagatgccca agaccctagc cgagattgtc 300  
caaaaggatg tgcaactgatt agatcttggg tggatattct tttatgttct atgtgatata 360  
tacctatttg tgtatgaact gttttgagtt tttcatgtca tgtgtcatan gttaattaat 420  
ccctagctga gtaccccatc aaaggctcaa taggatctgg ttgagtcac aagcgtgcat 480  
g 481

<210> 5437  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-F9

<400> 5437

ggctcctagga ttccccgggtc cacgggggaa aaaaaggcct gatgctcctg ctgatgaagc 60  
ttcgtcctac tacaagggtc ctttctcaaa aaccgtctac attgaaaaaa actgattttc 120  
gcgtgaagga ctccaaagat tactatggat tggctcctgg taaatctgcc ctgctgaggt 180  
atgcattccc gataaaatgc acagaggtta tttatgggtga taatccagat gatattgttg 240  
aaattcgagc cgagtatgac ctttcaaaga cctctaaacc taagggtgtt ctgcaactgg 300  
ttgccgagcc agcacctgga gttgagccgt taaagggtga aataagaata tttgagaaat 360  
tattcctctc ggagaatccc gccgaattga aaaactggct ggggtgaaatt aaccgcact 420  
caaaggaagt aatcaagggc g 441

<210> 5438  
<211> 468  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB104-020-Q1-E1-G11

<400> 5438

ccggctcctag attcccgggt ccacgggaat tttggacatg gcaggctcag tcgtggtggc 60  
gaggcaggcc ccagactgcg aggtggttgg ttggaagct cgaggatgaa cagtggaagg 120  
caggggagga gacgaagagg caagtgtgaa tcgaggctga aaatttgga acttgccctc 180  
tgagagctgt ctaaaagagg aaacccgaat cgctggttgg gctggtccta tagctcaagc 240  
ctcaattggt ggaaaaggaa aagttggtaa ctaaaaaaat gggcacaggt ctataagccg 300  
aggctcgggg caggcccagg ccatgtgacc caagttgcca cacccatagc aagtaattaa 360  
cctgtttgaa accctgggtt ggcgccctca actccctaata catagcgatc attaacctgt 420  
gtcgaagcac gagcattacc tcctgggtcac acagtcaaag cactttgc 468

<210> 5439

<211> 307

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-020-Q1-E1-G5

<400> 5439

gggccgaaat tcncgggtcg acctccgcgg acgagggtgca gcgcatgatg gcggagatcg 60  
acaccgacgg tgacggcttc atcgacttca acgagttcaa ctccttcgc aacgccaaac 120  
ccgggtcaa gaaagacgtc cccaaaggcc tccgaatcaa ttcaattcaa ctcaaccgtc 180  
cgattcaaga accgattcaa ccacgtacgg gttcctataa caatttcaag caactaccta 240  
caccggtccc gattcaacct caacttcacc tgaaggcggc cctaattttg tttgatcatt 300  
ttttttg 307

<210> 5440

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-G7

<400> 5440

gggccgaaat tccccgggtcg acgggagaca gcggtgtcta aggtggagta gaaggatgcg 60  
gctgctggag cttttctccc tccgtgcacc caacaagcct ttgtgcaaaa tttgaaccag 120  
acattgcttt tgtagaatta tcgttgctta gtattacgat tctctaaca ttcgcgcgcg 180  
tatatatctc ccatacttat atatgtacac agtgtatata tcgcgccac atgtgtacgc 240  
atacaatatc atagagtata ctcgacaaaa aaaaaaaaaa aaaaaaaaaa aaaagcgggg 300  
gcgctctagg atatacagc atatatacgt gtatatgaga tgtcatatct cctctagagt 360  
gtcacctatt cacatcaca 379

<210> 5441  
<211> 479  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-020-Q1-E1-H10  
<400> 5441

cgctgcagg atacgggtccg agaattcccc ggctgacggg ttatcggaaa attcaaatgc 60  
ggcacttctt ttctactgga atgagatgaa ccgacagggt agagtagaag ggtcggttca 120  
gaaggctca gaagaagaat ctgagaagta tttccacagc cgcccacgtg gaagtcagct 180  
tggtgcaatt gttagcaagc agagcactgt catttctgga agagaagttc tccaacaagc 240  
atacaaggaa ttggagcaaa aatattctga cggtagcttc atcccaaac ccgattactg 300  
gggtggctac aggttgacat caaatctttt tgagttctgg caaggccagc agtctcgtct 360  
gcatgaccgg ctacagtatt cacagcgaga attaggtggg agtacagaat ggcacatcca 420  
aaggttgctc ccttgatcag taacctcctt aaagctctcg cctcgtgggt aataaaagg 479

<210> 5442  
<211> 376  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-020-Q1-E1-H12  
<400> 5442

ggtccaggac tccccgggtcg acggaggaag gagcagcagc aggagcagga gaccagcag 60  
caaggccaag gactcaccgc cagacccccg ctcgccaacg gcaggtctgg aatgttgcca 120

atgtcgagcc ctccagcaaa tccaggacag cttaccattt tttatggtgg gtcagtatgt 180  
 gtgtatgact cagtgccacc agagaaggct caagcaatca tgctcattgc agcagcagca 240  
 gctgcgccct caaaaagcaa tggcaccgct gctgttaagc ctccagcgat gtctgcgacc 300  
 aatgctatcc aggccatgcc taagcggctg ctctcacttc agagcacttc tgtagcagat 360  
 ggacaacctc aggctg 376

<210> 5443  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-H2

<400> 5443

attcccgagt cgacccgcga ccgttgtagc gcgatgcgga gggccagata ctccctcattt 60  
 gtcaccttcg ccactgccgg tgcctgacat tgggatggag ggggagggga acaaacaggg 120  
 agcggagtgga aagcggcgaa gatggaagca aagagtgaag tggagctagg gtttgctccg 180  
 ggtgggggatt ttagtgggga tagagtgggt aggtatgggc catggtggtc aggctgacgt 240  
 ggcagacgcg tctaggccac cccatacccg ccctagattt aggctgggtt tgaggggtgc 300  
 ctgtcagctc gaatggccat gtttgggtata nggagccga ctcggtcaaa ttttagtgac 360  
 agtgcattga tcaggccatc taccgggtca gttttggcac ggaccggggc gtccaccatg 420  
 acgtagttgc cacggtaggg gttgccgggc accatacacg acactagaga g 471

<210> 5444  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-H9

<400> 5444

ggtccgagga tccccgggtc gacggggagt aaaagagaat cctactctcc gatatatata 60  
 atcctaagac tgaaaacatt tttgttctag actcaacaac gtcagcgatt cgatcaagca 120  
 gggggctcct aagtcgggga tggccctgat taccaacttg taacaccac gatgctggcta 180  
 tatctccac gtgtcgtagc acgacttaga ggcataaccg cattgtgggt ttgtcgcaag 240

aagtgtcatc ttcaaacaat cccaagttat gaacaagaaa gggataaata gagttggatt 300  
acaatcgcca cttcacacaa gtacttaaata aaatcatata tcattcagag tacacacata 360  
gtccgactac ggacgaagcc aaaagaaaag aagataaccc aactgctaga ttcccgatcg 420  
tcccaactgg gctccactac tgatcaacat gaaacg 456

<210> 5445  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-021-Q1-E1-A6  
<400> 5445

taccggtcca gaattcccgg gtcgacgggg agaagaagaa atccagcgag aacatcaagg 60  
tcatctacgc ccgcgccaag cagtacgccg aggagtaga tgcccaggac aaggagttgg 120  
ttcagcttaa gcgtgaggcc cggatgaagg gtgggtttta tgtcagtcct gaggccaagc 180  
tgctgtttgt tgtcagaatc agaggtatca atgccatgca cccaagacc aagaagatct 240  
tgcagctggt gcgtttgagg cagatattca atggagtgtt cctgaagggt aacaaggcca 300  
ccatcaacat gctccgcagg gtcgagccat atgttgcata tgggtacccg aacctgaaga 360  
gtgtgaggga gttgatctac aagagagggt atggcaagct caacaagcaa aggattcctc 420  
tgaccaacaa caaggtcatt gangagggtc ttggaaagca caacatcat 469

<210> 5446  
<211> 467  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-B6  
<400> 5446

gtacggtcca gaattcccgg gtcgacggga agcagcaaag ttgagcatgc ggtgtcgcgc 60  
ttgtgatgca cagtgtttgg ctccggtaca tcacagaggc cggcagcaag gaacacagct 120  
tcctgccctt gcctctgtaa atcatcaagg aggaaaaatg tgcaagatgc ttgaagtttc 180  
cccttgaaac gaaggctctg ggcctttgtt tgtacatata ttcccttgat ttgtactgac 240

tctccaatta attattcaga gagctatggc catacaagga aatcaaaagt ttcagttgca 300  
 tgtagcaagg aaggtcaatt tgacacggcg gtgctgccat ttgccccctcc cttctccctc 360  
 gaaaatgtgg ttgacgctcc ccagatcttc aggttgcacg acaagatttt tttcctgtgg 420  
 aacatattgt gtatcttcca tcggatcatga gtaaattcaa atcaaaa 467

<210> 5447  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-021-Q1-E1-B7  
 <400> 5447

attctcgggt cgacgggggg caagtaagga actattatct agctctgcac ttgattcacc 60  
 ttatgttttg agtaagcttg caacaccacc acatgctatt aatcctgata tgtagcaagt 120  
 aattaatgat gctacttctg ctatgaatga tggtgatgat gatgctagta cttttcttga 180  
 taagattgtg ccactgggtg aatctcttga tgaacaactt gctagatcta aagaaattga 240  
 gaatgctgaa accaatgaaa gtacttaaac tgatgaaatt attgaaactg gaaattttga 300  
 ttcacctatt ggaactagtg ccactagata tgaatttcct gagatacctg agggatcatgt 360  
 tatggatgga gaagtagcta gagactttct tgcttgtaag gatanagatg atcttaaaaa 420  
 attactacgc aggctgaaag aaaaatcttt g 451

<210> 5448  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-B8  
 <400> 5448

gtaccggtcc agaattcccg ggtcgacggg gatatgtgat ttgcttgagg cgtcgtgtat 60  
 tatattagtc tttgcttttt agtttaccac aatcatcctt tctgtacaca ctttttggga 120  
 gaaaccact tgattagaat ttattagaat atgctatgtg cttcacttat atcttttggg 180  
 ctagatagtt tttgctctag tgcttcactt atatctttta gagcacggcg gtggcttaat 240  
 tttgtagaaa tttctagtct ctcagtcttc acttatatta ttttgagagt ctcttagaat 300

agcatgggat ttgctatggt tatgaatttg gtcctagaat gatgagcatc caagttgggt 360  
 ataataaaca ctatcatagc aagtgcatta aacactagga tcaatttgat gcttgataat 420  
 tgttttgaga tatgaaggta ctagtgttag agtcatgcta gtgggt 466

<210> 5449  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-B9  
 <400> 5449

attccccgagt cgacttcgac caaagcgata tccatcatct catcgaaaga cgggacacct 60  
 ttgcctctat caagtgggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120  
 tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaatag 180  
 ggtagttca tcatatccga accaatctga gcctttgcat aatcttttta gggtttttgc 240  
 tttgttgaat ttgcgggtgc atcgctgtgt caagttgctg gtcttagagt ctagtctttt 300  
 agagtttcga gttctgggtca taagttgtca cgccgccgcc gcaccatcat catcgccttg 360  
 ccatctacca ccattgtctca tccgccaccg ctctgaatcc gtatctatat accaccaccg 420  
 atccgtatcc atataccact accgctacca tatacc 456

<210> 5450  
 <211> 486  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-021-Q1-E1-C4  
 <400> 5450

cgctgcggta cgggtccgaa gccccgggtc gacaggatcc aggttccact attggttatt 60  
 gaccggagag gtgtctcggg catgtctaca tagttctcga acccgtaggg tccgcacgct 120  
 taacgttacg atgacagtta tattatgagt ttatatgttt tgatgtaccg aagggtgttc 180  
 ggagtcccg atgtgatcac ggacatgacg aggagtctcg aaatgctcga gacataaaga 240  
 ttgatataatt ggacgactat attcggacac cggaagtgtt ccggagaagt ttcagataaa 300

accggagtgc cggaggggtt accggaaccc cccggggaag tattgggcct tagtgggcct 360  
tgaggggaga gagagggcag cagccaggag gtggcacgcc ccctcccatg aggagtccta 420  
attggactaa gggagggggc gcagcccctc tttcccgcgc nctctccctc tctttccttg 480  
ccccct 486

<210> 5451  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-C5  
<400> 5451

taccggtcca gaattcccgg gtcgacgggg tgatgagtaa gctctttgag aaggacactg 60  
agcaactcga ttcgtcggaa gtgcagaaac aagatgatgt tgtaacatc atggaaccgt 120  
ctgatgctga gacagaactc tctaattgctg agacggaacc ctctgatacg gagacagAAC 180  
cctctgattc cgacaatgat ttgccaatgg aagaaacaac agaaactcct gaagaagatt 240  
tggatgacct ccaaattggaa gaaacagacg atccttctga agaagaattc gatgatgacc 300  
ttgtgatcaa cattgctcct cgcaaggcca acaactcagc tgcccagtta aatagggcaa 360  
accaagcagt gaataaggac gagcgggttca gaaaacgtca gcactttgat gagatttctc 420  
cacaaatgaa gagacagaaa cctgaggatt tatctgaacc tagaaacca 469

<210> 5452  
<211> 470  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-C6  
<400> 5452

gtacggtcca gaattcccgg gtcgacggga tagcgcaagc caaggaagac ctggcggcag 60  
agaacactag gatgactatg gaacggggccg ctttgatgac tcaggcgcaa cgaatccaag 120  
ctgattcctt ccggtctctc ttggatcaga acgcttcaaa cgaagtcttg aggagaaggc 180  
accggagtgc tctgcgcgcg gtttacaagg tgaggaacct cttcaacaca cctagtgtag 240  
ggaccagtga cccgccaggg gtaaattcagg cagtagccgc gcttgggact ggagcgcgcg 300

ctcaaccgtg catgacaggc cgcgccagtc agaataatat cctaccacaa cacgtgccga 360  
caccaccggg tcattactct aaccctttgg ataacatgat cgttgtgatg tcgtgactgg 420  
cggatctccc agttgaaggc gagtctctag cggcggttga aacgcggaag 470

<210> 5453  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-021-Q1-E1-C7  
  
<400> 5453

acggtccagc attcccgggt cgacgggggg gggagagaat cctcccttgg ccgcccggcc 60  
tttcccatct agggctggcc gcaccccttg ggggtgggaa accctaaagg gggcgcagcc 120  
ccccttcccc ctatatatac ttgaggtttg gggctgccat acacatgagt tctctccctc 180  
ttggtgcagc cctacctctc tccctactcc tccctctccc tgggtgcttag cgaagccctg 240  
ctggattgcc acgctcctcc accaccacca cgctggtgtg ctgctggttg atggagtctt 300  
cctcaacctc tccctctctc ctgctggat caaggcgtgg gagacgtcac cgggctgtac 360  
gtgtgttgaa cgcggaggtg ccgtccgttc ggcacttgat catcggtgat ctgaatcacg 420  
acgagtacga ctccatcaac cccgtttact tgaacgcttc cgct 464

<210> 5454  
<211> 466  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-021-Q1-E1-C8  
  
<400> 5454

tacggtccta aattcccggg tcgacctct ccagccacca cctgtgattg ttcattccag 60  
ggctcctgtt catcgagcct ccaccgcgcg ctactccagc ggctactgtt caaccagccc 120  
tctccacggg ctccatttca accaccctt catgggctat tgttcatcca gccctctacc 180  
gtctactatt catccagacc tccacggggg ggtcctgttc atcctgcctt ccatggggtc 240  
ctgttcatcc agccccaact ggctcgatcg atcgggggtc tgttcatcca gaggcaacac 300  
cacgggggtc tattcatcca cccacaccag gaactgttca tccaaccccc ccagcaacgc 360



tcactgttca tccaaaggca gtatcgatcg gcttcagtta gcagcagtag cgaaggaatc 420  
gttcgatcga gttcagttaa cagccatcga ttaatcgctc gggttc 466

<210> 5455  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-021-Q1-E1-D11  
  
<400> 5455

attcccgggt cgacgggaga cacattggag tacgaacggt tctgcaaaaa gggcctacgg 60  
ccttctctca aggacatctg ctggaacggt ccgtcagagg aaaagcttcc atcagtatcg 120  
gagtcagtac ctccaactcc gtccctccaag tcgacaaaaa gaaatggcat ttaagtgtga 180  
tatcttctga gatgcaatta caatctattc tctctctctt ttcttccctc ctcaaagagc 240  
tgagactttg ctcaattgag catcaagctt tagggctctt tgtaaatctt ttttacagtt 300  
tccaatttgt ggtagcaatt gtagtatatg gttctctctg tctattcacc aatagaagca 360  
caaaaagtga cagtaacact cttacagtgt tgctttggga caagcatacc atcacctgca 420  
aaaaagatct tgtaagagcc anagctatta taggatga 458

<210> 5456  
<211> 465  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-021-Q1-E1-D5  
  
<400> 5456

taccggtcca gaattcccgg gtcgacggga gaagtattgg gccttattgg gccatacggg 60  
aaagagagag ggtctgcta gggcaggccg cgcgcccccc aaggcctagt ccgaattgga 120  
ctagggggag gggccgcacc cctccttcc ttcccttctc tcttcccttt ccttctctcc 180  
tactcctact acatggaagg tctcctagtt ggactaggaa aggagggagt cctactcgtc 240  
ctactcccgg tgggagtagg actcctccct ggcgcgccct cccttggccg gccgccccct 300  
cccccttact cctttatata cgggggcagg ggggcacccc ataacacaca agttgatcta 360  
cggatcggtc cttagccgtg tgcggtgccc cctccacca tattccacct cggatcatatc 420

gtcgcagagt ttaagcgaag ccctgcgccg gtggagcatc atcat

465

<210> 5457  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-021-Q1-E1-D6  
  
<400> 5457

tacggtccta aattcccggg tcgacgggga ggtcgaagcc ctccggagag aagtagagat 60  
gctcttccaa cagaagctca agccgggtac ggctaccgcg gcgttataga cactcggatg 120  
aacgcaaggg aaacaggcag gcgtttccga tccagtgaat cagtgtctggc tgccaaactt 180  
ttgaaagagt agattgtttt cagaagagtc tggctgttga gctgagtccc ttcttacttt 240  
tgccggaggg ttatagtgtt gtaggattcg atggaacata ggtagagac acttgatatg 300  
atgatatggg ttagttttcc catttgcaca gcaagctatg acacccccct gtgtttcttg 360  
gaagatttcc ttttttattg gaagacacga tgatcctcca ttcctcctgt tatagaagtg 420  
caaagacgtc ttaaaaaaaaa cagagaaaag tgaaaaca 458

<210> 5458  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-021-Q1-E1-D7  
  
<400> 5458

gtaccgggcc agaattcccg ggtcgacggg ggtgaagcac caggacctcc ccgtggtgct 60  
ggcgccctgc tgcgtcctgc acaacatctg cgagatgcgc cgcgaggagc tcgagccgga 120  
ggtcccgttt gcgctcttcg acgacgacac cacgccggag acccctgttc gctctgagac 180  
cgccaagcag gagaggggaca gcatcgcgca caacctcctc caccgcggtt tcgccggcac 240  
cacatttttc tgatcaaata acctcctgcc ctctccttgg cttggtacag ataaaaaatt 300  
aaacatgtag cgaattcttt tagccgctag gatagaacat tttgttagga tttgtacacc 360  
acgttcagag aaactggaaa ttcattgtaa cattctgtgg aaaatttcgg cagtacctgc 420  
tgtcggttac tcggtttatt gtttaaagat atatatacaa tttta 464

<210> 5459  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-D8

<400> 5459

tacggtccag aattcccggg tcgacgggac tcgaaaagac gtctcgaaca gcgaccagtc 60  
 tctcgcctta tcatgacagt cagtttttagc tttctccact gaggcgctcg cccagctcaa 120  
 ccggggctca atcgcagtgg ttctcccagt gctaccttag ccgacagaat ggaacgtaag 180  
 gtacaaaaac atgggagccg ggcaaacca actattgacc caaaacatga ttcggagccg 240  
 atgcatataa tgctataagt tcgggggtgcc gcacttgtga aagtgttcgg acttatcaca 300  
 ccataatgcg gggaacacaa gcccctgggtg tattctgccg taccaaaata tacgggtgca 360  
 agatgtcatt aatgaacata tatgtaaaaa aggtaatgca attataggca aaaattgatg 420  
 cattgtttat tcaagagatt ctgccatgag tgcagaacga tacaatag 468

<210> 5460  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-E8

<400> 5460

gtacggtcca gaattcccgg gtcgacgggc cttatcaacg cttgcctcgt cggtatgggc 60  
 gcgaacgtgt tctacggata acagccggcc accccgcgac ggttgcccat cttgtgcggg 120  
 agagacactc gcacttgggc tccgctttcc atgcgccgat acatacatag atggcatcgc 180  
 gggttaggga aactccaacg aggcacacca attctgcatc cctaaatatc cggaccgaat 240  
 agtctggaag accgtttggt catcaatcca atgggagtca ccaaatatcc acggaccagt 300  
 tcggatgtcc ggaatccac ataaaccgaa taggattgat ggggtgtgggg gtctcgccaa 360  
 aaaattgctt aacgggtcaa cggtacaatc gcatactcat attaaccact cgattacaaa 420  
 aaatgctatg ggagtagcat ccattagga catcgggctc aattcacga 469

<210> 5461  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-F4

<400> 5461

aaaagccggt ggaatcgaaa aggcggagaa ggtgatgggc tggattaatt tgatggaatt 60  
 tccacacgga tatacaatag ccttctagtc tgaggtctgt ggtgttgttt gtggcagtct 120  
 gtgaccctt ctaatgtcag gcatgcagtg tacataacgt gcaacctgag attgttgat 180  
 taggagaaaa tagaatttgg acgctagtgt ccgagtttga gcagtatggc accatcaaga 240  
 tcccttgatga tcttccctca aaaaaaaatc ccttgtgatc cattatgcag tggggcctga 300  
 ccagcctttt acgtttgtga gagtcgaatc ttgtgttggc atgtggaatg tttgtgtctt 360  
 tgtttcagag caaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agcggccgct ctagaggatc 420  
 caag 424

<210> 5462  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-F5

<400> 5462

gtaccggtcc agaattcccg ggtcgacggg aggccggagt cctgtcagga tgggcggcga 60  
 ggtcgtggct tagaggggag aatgttagga ataagccacg catgagtatg tgctcatgtg 120  
 tgtgatctgc atgcatggat ggattagtta gctagctatg gagccggcgc agctgagtcg 180  
 cgtggcagtt ctgctggag gaagaatagg aagcaatagt tgaggcttgg tcctatacgt 240  
 gtgtatccaa agattctgga gacttggctg ttaccaagc gtgtgtagct agcccgtgga 300  
 gtactaatcg gatcaagcaa ccgtgggctt gaccatgcat acgtgtgtgc gtggggttag 360  
 tgggtgtgtg tgagtcttgt acttggctat ataagttgag taaatgaatg agaaaagtgg 420  
 ccgtgagggc tggat 435

<210> 5463  
 <211> 472

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-F6

<400> 5463

ggtaccggtc cagaattccc gggtcgacgc tacgtaccaa acatacatag gtatacagag 60  
gactagctag acgcgctagc tacctagtag gcagacagga tatcggtcatg aacaaatatg 120  
catacagaga gaagtgatat cgaccacctc tccttctccg agagattggt cgaacagaca 180  
agttctcgta tatctatcgg agactaccgg ctagatatag acaatagata tataatcgcc 240  
tacagtacgg acgcgtgggc tacatactat tctccgtctt cagcgatcac gtggtcaata 300  
aagaatgccg ccaattcctc ttgaattgct cgcgtgcgat ctgggtgctac gagttcatcc 360  
cgcatcagag acatctaatt ttaatacggg gggtcaatata tagatatata tatatggatg 420  
aatgagactc atcacaaatg atggtaacta catgaaactg tgaatactgt ta 472

<210> 5464  
<211> 463  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-F8

<400> 5464

taccggtcca gaattcccgg gtcgacgggg tggtttgctt ggagcgtcgt gtattatatt 60  
agtcttttct ttttagttta ccacaatcat ccttgctgta cacacctttt gggagaagcc 120  
tatttgatta gaatttgcta gaatactcta tgtgcttcac ttatatcttt tgagcttgat 180  
agtttttgct ctagtgcttc acttatatct tttagagcac ggtggtgact tatttttgta 240  
gaaattatta gtctctcatg cttcacttat atctttttga gagtctttta taatggcatg 300  
gtatttgcta tgggtataaa attggctcta gaatggtagg catccaagtt ggggtataata 360  
aaaactatcg tagaaagtga attggatgct atgggtcaatt tgatacttga taattgtttt 420  
gagatatgga tgtagtgata ttaaagtcac gctagttggg tga 463

<210> 5465  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-G6

<400> 5465

cgggctcgacg ggcaaactcgt aggaacaaca aaggaccgcg aagaacggtc agtcgtcgcc 60  
gagcgggatc atgatcacga gaaatatata tataggataa taaggtgggtg tattgccgcc 120  
atgtccgttg agctgatgtt tgtttcagct agagaaatcg ttacgcccgc tcataatttt 180  
tcgacgctat ggaaaataat aactactgggt atatcactct atatcaaacc ggcttgtgaa 240  
ataaatgggtt gcgccccggt tttttgtcgt cgaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaagaaaa aagcggccgc tctaaaggat caaaactcga gcgtatctat 360  
gaggttccaa gcttaagtac ttctacatgg taagtcaaat tcaattcaca gggccaccta 420  
atttaaattc atgggcggta attt 444

<210> 5466

<211> 305

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-G8

<400> 5466

attccccgggt cgacgggacg ggagtaaagt tacgtggcca acttcttggt ttcaaaaggt 60  
ttccaaataa aagttcagtg tcatgacggt gggaagaaaa aaaatttgct gctcttaagg 120  
ctgcgatgac agtattgttg ttagttgtca gcatgttgca tcaactgtgtg gtgtatgttg 180  
gatgttggtg gaaaaaaaaa aaaaaaaaaa aaaaaaaagc ggcgccccca caagatgatc 240  
gatgcttacg tctctctgca tacgacatca tacctctact atgtcgtcaa ctatcttcac 300  
atcgg 305

<210> 5467

<211> 414

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-021-Q1-E1-H12

<400> 5467

ttcccgaggt cacggatggc cggcagctcg agcactcctg gagtttgcag ctgccgtcgt 60  
agcagtagct acagccctgt cggctgccgt agacgccctc tcggtggaag cggctgcgct 120  
caatgcggat gtggcggcac tctcggtgta ggcggccgag ctcttggtgc aggcgcggcg 180  
ctcggggggg ggggggcgcg gccatcgtac tggccttcac gaagcgtttc cacgacgtca 240  
tctttgcaag aagggggtgc gggaatggg atcaggattc atggattcgg gggttgccgg 300  
aacaggagta nacgagccgg cgaagcttaa agagggagac ttaaatagac ccagatattt 360  
tcacgcgaaa cggttcctag aaaagaactg tgtgtgatgt cgtagataat tttt 414

<210> 5468  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-H7  
<400> 5468

taccggtcca gaattcccgg gtcgacgggt tcggcctctt cgctcgacc cacggcgagt 60  
ccccgccgat gcaggtgagc gcgagctact acggcgccgc ggagctcgac cgggccaccc 120  
atcagcacia gctgggtcaag ggagacgaca tcgagggtga tcttgatcac atgcacatgg 180  
gggtgggcgg ggacgacagc tggacgccgt gcgtgcacga ggagtacctg ctgtcgccgg 240  
cggcgagcta caggttctcg ctgcggctgc gccccctgtc gccgtcgtca tcgtgccacg 300  
acatctacag ctcccggcta cctaattgat cgteccatct gtctgatgtg gccgtcagag 360  
gtcgtctga gagagaaaga acattcgaga gactgaaaca atactgtccg agtcgctctc 420  
gctcgtgtaa acgtaagaag actgtaactg gacagggtacc tgtcaataa 469

<210> 5469  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-022-Q1-E1-A1  
<400> 5469

taccggtcca aaattcacgg gtcgacaact tttatctagc atccagtcct acaaggtagg 60  
gggatgcaag aacagaggga caagatccaa gtcacgggtc gcaaacactt ccataagggg 120

ggcaattttt gcaactagaa gattaggggg gaggtacaga gagggaaatc aactagttct 180  
 aaaactaaaa gaagttcatg gccagaaaat tttggaacaa caccttttac ctttttgttt 240  
 tcacttggga aacttgccca actatgccaa ttttttttg caattctcca gatttatgc 300  
 ctggtcagca cggagaattg cagacacatt tgcgttttca aaaaaatatt cccacagatt 360  
 ttatgtcttg atttctcgtc ctttttacta tgtttttcaa tgtgcaagga gagctcccca 420  
 acg 423

<210> 5470  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-A11

<400> 5470

gggtcgacgt tgaatgcta gattttaagg acttcctcca gagcaaccta gtcaaattca 60  
 ttactgtaga ctttggtaat gacaaagaag tcctgggtcg gataggcctc gttgtaggca 120  
 acaccttcga cctccagaag aattggctgg tgcctctcgc tcagccttca atgctgaccc 180  
 tggcaggagc catggttcat ccttcgtacg gtaaactgga gaaacctcca tacacatttc 240  
 atcgttatgc atggcagcag aatgtactag atatagacca catccactac cctgcaatgg 300  
 atggctacct ttgtttcaat atctacaagg gttggatgaa gagcaagagc caagtgtgtg 360  
 gttcaagcaa agaagtatcg tccaag 386

<210> 5471  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-A2

<400> 5471

cctgcagcta ccggtccaga aatcccgggt cgacgggaag actagtatga atgattcaaa 60  
 ggagaaggat gagaaaaaga aagaagatgg cgacagctca caaaaggaga aggccaagac 120  
 agggaaagat aagaagagcg agagcaaaga taaggataaa attagcgtca aggagactgg 180  
 atctgatgca gatgacagta cccccaagaa caaaaagaat gataaggaca atgcaaagaa 240



gaatgatgaa agcgatgaaa aacaagagaa agacaaagag aaggaggaac atgataacaa 300  
gaagaagcat gtagaagtgg gtcacgcaag agaaatcaag ctacaagata atgagtctgc 360  
gaacaaagaa actggtgctt ctgaagagaa gaatgatggc acggaca 407

<210> 5472  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-022-Q1-E1-A4  
<400> 5472

cgggccagaa ttccgggctg acgccataga ggcagaagcc catgcggtag ccaaacagat 60  
actcgaacac gtccagaaac gaccacacga agtagccctg cacgttcgac ccgttcctgc 120  
tggtatcgag ggtctcctcg atgtaatcct gcaggtactg cgacctgaac tcgtcgtcag 180  
gggcgttccc agcagacgga tcagcaatgc tagcagctcc gttctcatgg atcatgacta 240  
taggggttctt gtatttgagc tggagatgct ccagcatttt ctgcagagcc cacgggttctg 300  
atgtcatgaa atcgcttttc aaccacagaca ggagctggtt cttcttcaaa actggcatgt 360  
catagttcac tgatgcatca cacatgtaat ctctcagctc atcatccagc ttgctaagat 420  
cagccttcac atataccgca atgta 445

<210> 5473  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-022-Q1-E1-A5  
<400> 5473

attcgcgggt cgaccgcgac ggaaaactca cctacggcgg ctactccagc atggtggtgg 60  
tgcacgagcg cttcgtgggc cggttcccgg acgccatgcc gctggacaaa ggcgcgcccc 120  
tgctgtgcgc cggcatcacc gtgtacaccc ccatgaagta ccacgggctg aacgctcccc 180  
ggatgcacct cggcgtgctg ggcctgggcg ggctcgggtc cgtcgccgtc aagttcggca 240  
aggccttcgg gatgaagggtg acggtgatca gctcatcgcc ggggaagaag catgaggccc 300  
tcgagagggt aagcgccgac ggcttcggtt tcagcaagaa cgccgacgag atgaaagctg 360

cgatgaacac catggatggc atca

384

<210> 5474  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-A6  
  
<400> 5474

attcccggtt cgacgggaaa ggcattggaga actttccaag aaagaaagtc aaattacctt 60  
atgaatctat catgcgtgct acttatgaat ttaatgccga agatggcact cgtaggatct 120  
atctttgttt ttatgcctag ctaggggctg taaatgatag cgctagtgtg gaggtaaccc 180  
aattttcttt atgttttttg ttttggctcc tgtttagtaa taaatctagc atctaccttc 240  
tggttagatg tgtttttatt ttttaattag tgtttggtcc aagtagaacc tataggataa 300  
cctacgatga tagttgattt gattctgctg aaaaacagaa actttgcacg cacgaacata 360  
attttgtaa ttcacaggaa cgtgattttg cgttga 396

<210> 5475  
<211> 287  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-A7  
  
<400> 5475

attcgcgggt cgacctggaa gtctacaagt gtttcaggat gctcaagta attgtcagga 60  
ataacgaact gcgccacatc tccatcaaca tgatgtccaa catcgacgat gtttctgttg 120  
gtctcaaatg cttgcggcac ggggcagcag tgtaactggt caagccgctt cgcattgactc 180  
atctgttgga actctggacc catgtgtggc cagttagaca gcagcttgga taggtccata 240  
aagatttcgt caatgtcaat cgtgacttgg ggctgtctgt aactaat 287

<210> 5476  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-A8

<400> 5476

taccggacca gaattcccgg gtcgacgggc aattcatcag atcttgacaa acacaccgca 60  
aatgaagatt acatcgaata gatctccaca agagaggggg agaactagta aaatatttta 120  
tgaacaatag ggaagttgga atacagtaag tttaaaacca atattaataa agagcgagtt 180  
cagtacagta ccttgaagtg gtgttttggt ttctttcgct aacggagctt atgagatttt 240  
ctgttgagtt ttgtgttggt aagttttcaa gttttgggta gatatttgat ggcttatgga 300  
acaaggagtg gcaaaagcct aagcttggga aagcccatgg caccocgagt aatctaagga 360  
caccaaaaag cctaattcttg gggatgcccc ggaatgcac cctcttttcg t 411

<210> 5477

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-B4

<400> 5477

ccggtccaga tattccgggt cgacgggaga gtangagaca aacctaacaa gacatagaga 60  
gagagataga gagagaaaga gagaggaaga acttaggtct gtgagaaaga tggatacatg 120  
taatatacat gagatgcatg tgcattctgga ttctgtatac gtggaagggtg aagagacaac 180  
atgtttggtg agagagctgg aaaaacatgg aacagagggg aaagatctcg tgggttgagg 240  
gattgacaat tttatgcggg ggagagaggg attggtaatt ttgtgcaaga gagagagaga 300  
gagggtgcgg ggaggagtga gtcagccgtc gtcacatcac cctgcttcca aatcgacccg 360  
cattctctag cgcggtgtgg tcgctgtcnt cgatctcctc gatgccctct ttgaagattg 420  
acgtgttggtg catgttgggg tgaaaat 447

<210> 5478

<211> 185

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-B6

<400> 5478

cctatagtga gtcgtattac gggtaaaacg aagacgaaca ataggaacat gcaaaccaag 60

aagacgtaga gggagaaggc taactacagg aataagtaat agacgaagat atcgagcttc 120  
 aggaagcggg tcacgaagac gaatatgaat gtctcgaggg acatgcagac gaagaagaag 180  
 atgaa 185

<210> 5479  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-B7  
 <400> 5479

attcgcggtg cgacgggtag tcacattgca cgcacagtgc ataccaagac acgccaacag 60  
 cccgtcatgt agcaatcttc atgtgttttc actaatcatg gtctctttgg actcacggat 120  
 gccataaggg ccaaattgcat caatattgac acgttgact caaacgtgcc acttgggcca 180  
 acatggataa tgggtttttt actagcaagg atcacataag ccattatata gtgttggtac 240  
 cctagctaat aacaacatat atcaacattg gtcctagttg cagcttcaca ggaccactta 300  
 tgcattgtgc gataccatct tgaccaacac gcaacaacat tggcttcatt agattgatac 360  
 atgccataag ggggtccaaat cattcaccaa 390

<210> 5480  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-B8  
 <400> 5480

taccggacca gaattcccgg gtgcgagggg atgcagccgc tggcaccgtc gggctaccgc 60  
 cgggcgccgg agatgaagga gaaggtggag gcgtcgtcga tcgacctgga ggcggggaac 120  
 ggggagacgc tctaccggg gatctcgcg ggggagaacg cctccgctg gggcttcac 180  
 cgcaaggctc acggcatcct ctgcgcgag ctggctcctca ccaccgtcgt ctccgccatc 240  
 accgtcttcc accccaccct caacgccacg ctctccaaact cgcctgcct cgcgtcgtg 300  
 ctgcgtgtcc tccccttcat cctgatgatc ccattgtaca tctatcagca cagacaccct 360  
 cacaatcttg ctatcttggg tttgttctact ctgtgcttga gcttcagcat tgggtgtggct 420

tgtgcaaaca ct

432

<210> 5481  
<211> 242  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-B9  
  
<400> 5481

gggtcgacgt tgaatgccaa gattttaagg acttcctcca gagcatccta gtcaaattca 60  
ttactgtaga ctttggtaat gacaaataag tcctgcgtca gatacgctc gttgtaagca 120  
acaccttcga gctccaggac aattggctgg cgctgtctcg tcagccttca ctgctgacct 180  
tgtgaggaca catgggtcat ccttcgtacc gtatactgga gaaagctcca tacacatttc 240  
at 242

<210> 5482  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-C1  
  
<400> 5482

gggtcgacgg gtacatcatc ctgaggcggg accacacggg tcagtcttaa gtacggatgc 60  
attggacgtc atagtgtctc tacaatggca cgtatcttca gctgatgtgg ccatcgttat 120  
agaagatcca gactgggatg tcgctgtctt gatacaaatt acgctgtctg tatcaaattc 180  
tcatttagac agatggatta acaccgaaaa gggtggcaac gttcacacat agtacgagtt 240  
gcacaccctg actgggtgaag aggacgcgcc ctgttgcaaga ccagtacaca cgagccgatg 300  
tggtggtcta tgcgcagagt aaacgataca cttgccattc gggctaata cgggtacttt 360  
cgctttccac gcttcttttc tcgg 384

<210> 5483  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-C11

<400> 5483

taccggtcct acattcncgg gtcgactagg tcataccaga cctgtgggac ccatatgtca 60  
gcgtcacagg ttaaacaggg ggggttagtt tagtttaatt aaaaattagg gcactacggc 120  
ccacatgtca gtgtcagcag gggggtaatt aaattaaaat aaactaaact aattaacagg 180  
ggggctggcc ccacctgtca tcgacccaag gggggtcaaa cccctgggtca gcagggccta 240  
acctgccggc ggcttgacgc cagcgaggcc gagacggcgg acgccttcgg acttcttgct 300  
ccggcgggtca aaccgggtga tgaaggcgtc taccttgagc tgtgactccc ccgcatccat 360  
ctgtgcaaac gtcaggggct gaagtggccc aagctc 396

<210> 5484

<211> 236

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-C2

<400> 5484

acggtccaga aatcncgggt cgacggggta ccgacagtgt gacggcaccc tcctagattc 60  
tcataagcac atcagcatca agctggatga gaacttaaac tgggtacaat atgtcatacc 120  
gagtggttgc ctacatcagt aaacatgagg aatgctgcac atgctagcac ttaaaattaa 180  
ttgaatctta ccaatgttct aacgtacccc ctgtcatacc agagttattg tcttgg 236

<210> 5485

<211> 430

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-C4

<400> 5485

ccggtccaga aatcncgggt cgacggggcg gtaaactttc tattttgaaa cagcaacatg 60  
tatacttgca agatactcat agtaaaagct atccttgaaa tttttattga aaatagagat 120  
gcaaaacatt attataaata acatcaggca aatactaaca aaagaaaatg acgctccaag 180

cataacacat atcatgtggt gaataaaaaat atagctccaa gtaaagttac cgatgagcac 240  
agacgaatga cgtgatgccca tccggggcat cccaagctt acgatcatgg atgtccttta 300  
atactacatt ggggtgcctt gggaatcacc aatcttaagc tcttcgcact ccttattcca 360  
tagtccatcg aatctttaca caaaacttga aaacttcaca acacagaact taacagaaaa 420  
ctcgtaagct 430

<210> 5486  
<211> 462  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-C6

<400> 5486

taccggacca gaattcccgg gtcgacggga tatgagtatc agagtagcat gtctggagaa 60  
accacaccac ctacagagtt ctgttgccca atatcaacaa agctaatagca tgatcctgtg 120  
ataataacat ctggacagac ttacgaaaga gaatatattg agaaatgggt cagtgagggga 180  
tacaacactt gtccaagac acaaaaaaag ctagaaaact ttgcgatgat tccaaatact 240  
tgcatgaggg atctcatttg caactggtgc agagagcatg gtttcacaat ctcagatttt 300  
cttccaagca aagattccta cagttatttg ccagagcaat tgcatggtca ctctatgtca 360  
agtttgcaca atgtttcagt acctctaatt gctgggaatg ccaggaattt tgtgattgat 420  
cacagcagtt catctgtcgc gttttctgat gccagttatg tc 462

<210> 5487  
<211> 401  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-022-Q1-E1-D1

<400> 5487

ggccaanaa tcccgggtcg acgggaagga ttccacctat gagctttgga cgacgggtgaa 60  
caatctcttc gcctcgcaat cacagtcccg gatcaccaat ctaaggatcg cgatcaccaa 120  
caccaagaag ggcacaatgt cgagctcggc gtatatggcg aagatgaaga gccttggggga 180  
tgaactggct gccgtggtc gtcccatctc tgatccggag atggtgaact acatactcgc 240

aggacttgac cgcaactacg actccgtggg ggcggtgatc ggcgctgtca agaacacaat 300  
 caccgccgat gacctcttcg ctcagatctc cgcctttgat cagaggatgg agatgctggg 360  
 agactcgtct tcaggcgggt ttcattcatc tgccaacgcc g 401

<210> 5488  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-D6  
 <400> 5488

taccggatcg agaattcccg ggtcgacggg aggccggagt cctgtcagga tgggcggcga 60  
 ggtcgtggct tagaggggag aatgttagga ataagccaag catgagtatg tgctcatgtg 120  
 tgtgatctgc atgcatggat ggattagtta gctagctatg gagccggcgc agctgagtcg 180  
 cgtggcagtt ctgctgggag gaagaatagg aagcaatagt tgaggcttgg tcctatacgt 240  
 gtgtatccaa agattctgga gacttggctg ttaccaagc gtgtgtagct agcccggtga 300  
 gtactaatcg gatcaagcaa cctggggctt gaccatgcat gcgtgtgtgc gtgggggttag 360  
 tgggtgtgtg tgagtcttgt acttggctat ataagttgag taaatgaatg agaaaagcgg 420  
 ccgtgagggc tggataca 438

<210> 5489  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-D8  
 <400> 5489

attcccgggt cgacgggggg tgagagtcac ctttcatcca caaccaaggc atacacaaac 60  
 ctagacgggg agaaatcaca tatagtcaac acggcatggg caatgttggc actaatgaaa 120  
 gctggacagg ccgaaagaga tccgtctcct ttgcacgaag ctgcaaggct tatcatgagc 180  
 atgcagcttg gcaatggtga cttccacag gaggaatga ttggaagttt cttgaaaaat 240  
 ggtcccttgt gttatatggc ttatcgcaac atattcccca tatgggccct tggagagtat 300  
 catagattag tactttgctc tggctaaatt agtaccttct ggtatgaagc acctaaatgt 360



tgctgctcct ctgctggcaa tgctgaaaga gcgatatctt gatttacaag tcctgaagaa 420  
 agaaacaaga agat 434

<210> 5490  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-D9  
 <400> 5490

cgctgacgta cggctcgtaaa ttncggggtc gactaggtca aaccagacct gtgggaccca 60  
 tatgtcagcg tcacagggtta aacagggggg tttagtttag ttcaattaaa gattagggca 120  
 ctacggccca catgtcagtg tcagcagggg ggtaattgaa tgatgatact ctagacaagt 180  
 tatcacgggg gctggcccac ctgtcagcag ccacaggcgg taaaatccct ggccaacagg 240  
 gcctatgctg ccgctcgctt gcggccacca aagcctaaag cggggcgggc atctcacgtc 300  
 tagctctgcc ggtcaggaag tcgcctgagg gaattttctt gaatccggga ctgtcttctt 360  
 cacaacggtg caagcttaaa tcgctaccat gaccgtggcc cagaggagcc 410

<210> 5491  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-E2  
 <400> 5491

cgggtccagaa atncggggtc gacgggatag gcgacgtcgg ctcttccccg cgtgagagcg 60  
 ataggacccc tgggacattc gtactggcat gcgtctgttg cctgattgct cacaacggct 120  
 gccgctccct ggacctcagg cgggagacgt tcgtcaccac tgtcccgtgc cagagtgcca 180  
 tcgagctcgt gtctatccca atcagagccc tgacgcatga cgcgagccg agaatgaaaa 240  
 tgcttaggat gtttgccacg aaagggtttt tactagctgg gagctgtctg ttgcactttg 300  
 ccttactata ggctacaacc ttgtgtcctt gtgctgtgca acttgtggca ctcccagatt 360  
 gcagtcaaag ttatggcata tggcgtaatg ctacactctg ttaactggaa aagatgcgac 420

atta

424

<210> 5492  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-E5  
  
<400> 5492

taccggacaa gaattcccgg gtcgacgggg ttgatgcaag ccctagattt agtctgatga 60  
catgcttgct aatcatcatt atcctgtttg aagactttac ttcgtacatt acattgaaag 120  
attaaatgaa caagtgcaat accacactgt gatcaaattc tgccttgggc tatggaatcc 180  
cggaacaat tgtactcagc tttctgtaat aatccctatc tgctgctagc atggcaacat 240  
tgaaaaaac atcagaaatt ctacttgagt gccttcaagt aatttagatt gtccaattat 300  
ttctgtcact ggatactctt tgtttttcac tgatcacgga tttgggttca gaagatttgc 360  
taatttaggt tacgataatg ttggactgaa gttatgatgg cgtgtttag ataaaaa 417

<210> 5493  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-022-Q1-E1-E7  
  
<400> 5493

attcgcggt cgacggggaa gatcaagctc caggcgggag gagacccccg ccgctcggt 60  
agatgagaga aggcactggc gcagtcattg tttagatatg aaagttttgg acaccgagcg 120  
gaactcagtc gagagcttat atatgaaaac tagtgagaga gagaagacta tatttatgca 180  
attagaagag aactatatac attgtttttc cctaagctca ataaggtctg tgtcctttgt 240  
ggactgcgtt ttttctttgt cgagacagaa catacactac cgaggattgc agtcaaatgg 300  
aacttcgatt caagttaaac ttttgcaata agtatatgaa gttcttttagc agtagctcta 360  
gacgatacag gcttacgtac gcatgcatg 389

<210> 5494  
<211> 403

<212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-F1  
  
 <400> 5494

```

gggccagaaa tcncgggtcg acggggcact gcatgtttct aatcaccacg gttgatggcg   60
tggtctcatt tgctgagtggt ttttaggcaa tatttggaag gcgttaatcc gtttagtacgg  120
ttcacctatg cccaagtgtc aaccagatcg cactagctaa atgtttttgg ttgtttatta  180
atgaattata aactttgtcg agtgcccatg ggaaaatact tgacaaagat aagacacttg  240
acaaacaatt tgaaaggaca tcgacccta attagggttt tgggtgtaat ggcaatagtg  300
agtagacgac taactatggt tcgagtatgc tttgagtata tacatcattg gaaatggaac  360
ataaagttcg tctgcgattc cctaagctaa aaggataaaa gaa                        403
  
```

<210> 5495  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-022-Q1-E1-F7  
  
 <400> 5495

```

taccggacta gaattcgctg gtcgacctga agtacatggg agaggggggg tcctcgtcga   60
agtgcgagaa cgccatggcc acgtacgttg gctaccagca ccagagcca tgcgcctagt  120
cggccaattt gattctggtg gatgctggtg cgaccttaat ttaattctcc ttttcttctt  180
ctactaatct aattaatcaa tgtttcctgg acgaatttgt tgtttcctgt tgcttagatg  240
ttttgtgtgt gtgcggcatt agggagctgc caattgctgc atctacggag tactccctcc  300
attccaaatt actcgtcgtg gttttagttc aaaggagta cttgcctagt tgcccaatca  360
gtgaactcga tcgtctgaca agtgggccct gtgcttatgt tgacgattaa tgtg      414
  
```

<210> 5496  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-G1

<400> 5496

taccggtcca gaattcncgg gtcgacgggt tgacatactt gctacttcct cttgctgctt 60  
ggataacttt gtagtccaat atgctttgtc caacatttag actttcccct tcaaagacac 120  
attgtctccg aaagttggaa gattctatat tttatatccc ttatcttttg agaaaatata 180  
tgtgagtga cctgaatgtg gatgtataag attagtagatg aaccacaaaa aatgcaataa 240  
tgcatactta catgcaaggc aaccattatc tttctaactt ataaaagaca atatattaat 300  
acaacatgt ttgatctcaa ctttctagaa atccaatgat agtaagcttg ttaggaaaga 360  
aacatatgat tagtttttagg acaaattggcc aaagttgtta tagaactggc atgtaataca 420  
cataacatga gatgttagtt aanctaattt tt 452

<210> 5497

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-G2

<400> 5497

gggtcgacgg ggtattaata aacctgacag gttaattgaa gagtgcaata tcgtttcttt 60  
tgctttatct gttgcagaag aaattgaagg taatgctgag ccttcttcat attccgagggc 120  
tattatttct ggtgatagta ataagtggat gaccgctatg catgatgaga tggaatcact 180  
tgaaaagaat ggcacttggg atttagtaag attacctaga gagaagaaac atattcgttg 240  
caagtgggtt ttcaagagga aagaagggtt ttctcctaata gatgagacaa gatataaagc 300  
aaggtttagt gctaaagggt atagccagat tccaggtatt gactataacg aagtcttttc 360  
tcctgttggtg aagcatagct ctattcgac tttactcagt attgttgcca tgcattgatct 420  
tgagcttgaa caattggatg taaaaactgc 450

<210> 5498

<211> 461

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-G3

<400> 5498

ccggtccaga attcncgggt cgacgggctc atagtgttc atttatatat ttttagcttg 60  
atactattgc tcattgtgcc tcacttatat cttttgagct tgatagtgtt gctcatagtg 120  
cttcacttat atcttttgag cataataatt tttgctctag tacttcactt agatctttta 180  
gagcacgggtg gtggatttgt tttaaagaaa ctattgatcc ctcatgttc acttagatta 240  
ttttgagagt atttaatagc attgtaattt gcttaaagat aatatacttg gtattcaaga 300  
tatgtgaaac tttcttttga gtgcattgaa tagtaagata agtttgatgc ttgataattg 360  
ttttgagata tggaggtgat aatatcaaag caatgctagt tgggggtgatt atgaatttaa 420  
agaatgcttg tgttgaagtt tgtgantccg tagcatgcac g 461

<210> 5499

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-G5

<400> 5499

gtaccgggtcc agaattcccg ggtcgacggg aacgagagag aggaagccat ctagttacta 60  
actacggacc cgaaggtcta caaagaacta ctcacgcac atcgggagagg caccaatgga 120  
agtgggtgaac ccctccgtga tgttgcttag attggatctg ctggctctag actctgcggc 180  
ggctggaatt gatttttcac gattccccta tggtttctgg aatattgggg tatttataga 240  
gtaaagaggc agtccggggg gcacccgagg tgggcacaac ccaccaaggc gcgcctgggc 300  
ctccaggcgc gccctgggtg gttgtgctcc ccttgagaca tccccaggt gcttcttcgg 360  
cccattggat gtcttttggg ccaaaaaaat ccacaaaaag tttcactacg tttggactcc 420  
gtttggtatt gatttcctgc gat 443

<210> 5500

<211> 427

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-022-Q1-E1-G8

<400> 5500

aattcgcggg tcgacgggga catcgagatc gacggcaagc ccgcaggtcg ggttgtcatg 60  
ggacttttcg gcaaggctgt tcctaaaacc gcagagaact tcagagcact ctgcacaggt 120  
gagaaaggca tgggcaacag cggcaaacct ctccactaca aggggagttc gttccacaga 180  
attatcccca gtttcatgat ccaaggaggg gacttcactc ttggcgatgg aaggggcggg 240  
gaatcaatct atggcacaaa gtctgccgat gagaacttca agctcaagca cactggacca 300  
ggctaccttt ccatgggcaa tgctgggaga gatnacaatg gatcccagtt cttcatcnac 360  
actgtaacca tgagctgggt ggacggcaag cacgtcgtgt tcggcaaggt gttgtctgga 420  
atggacg 427

<210> 5501  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-022-Q1-E1-H1  
<400> 5501

ccggtccaga attcncgggt cgacggggct gctcgatcgc ggtagtgttc gtgatctgcc 60  
tcttcatgct cgcgttcggg tggctgtggg gtccgctcgg gtggacgggtg ccgagcgaga 120  
tcttcgccct ggagacgcgg tcggcggggc agagcatcac ggtggccgtc aacctcttct 180  
tcaccttcat catcgcgag gcgttcctgt cgctgctctg cgcttcaag ttcccatct 240  
tcattcttct cgctgctgtg atcgccgtca tgaccgcctt cgtctatgtc ttctgcccgg 300  
agaccaaggg cgtgcccata gagcagatgg tgctgctctg gagcaagcac gggttctgga 360  
agaacgtcat gccggacatg cact 385

<210> 5502  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-022-Q1-E1-H5  
<400> 5502

taccggtcca gaattcccg gtcgacgggg atccggcaga cggaggcgaa cgaggaggcg 60

aagctgagct cgttccagca ggagatcgtg cagctggcgg cggtgctgaa cggcgaccac 120  
cagctaagca gcctgcagga gaggatcagg gagaggatga acgtgaggga aggcacctcc 180  
tacatgagga gcgcctgctg gcgcttcttc gaggccggca tgtcggccaa gaggatgggc 240  
ctcgccgacg acgagcagat cgtcaagatg aggccctccc ttaccaccag aatgacctcc 300  
tcccctgcag atcaagatga tagtccgtag agagcaacga tgcatacata cataggatga 360  
agattgatgt tggaattacc anaattctta gtactacaca tacatacata gaa 413

<210> 5503  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-022-Q1-E1-H6  
<400> 5503

taccggacca gaattcgccg gtcgacgggg gccacatcaa gtacggcggt tggagctcgg 60  
acaacggcgg aagcggcggt gcagagtga aactaggcgg cttctggctc ctacggcgcc 120  
tacgggagct cagagggtta ctggacatgg attccaggcc agtaagtcac gggagtgcg 180  
ccggccatga gcttgagcgg cggtggtttt cggcctcgat ggaactacgg cctagagctc 240  
gcaatcgaga gcgttggttag aggggaaatg accaggtgct cacaacgcgt tggatggng 300  
gctcggnagc tcgggcgagg ctctggagtc ggtgtgtggt cgccggcgat ctcgccggac 360  
gagagttgaa gacggcgaag gcgacggcga tgcaaggcgt tcg 403

<210> 5504  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-A5  
<400> 5504

cccggtcga cgggaaagtt cttgttttcg taatttggtc actatttcag aaaaatgttc 60  
atgtttcaaa aaatgttcgg gaatttcaaa aaatgttctc gttttcaggt agaaacacaa 120  
tttcagaaca atgttgatgt ttgaaaaatg ttcgcggttt caacattgtg atcgcaattt 180

caaaaaatat ccctgtgttt ttttgttcgc atttccaaaa cacatatgaa tacaaatatt 240  
gttcgcattt taaaaaaaaat attcatgttt tatttctttt gggtttgaat taagaaaatg 300  
tgtttttcaa ttttgttta aaaatatcat ttgtggtctt agaaaatatt taggaatttc 360  
caaaaaagga aatagaacat cacatttttc gaaaactggt tgtaatatat acaatacttg 420  
cgtgatttca aaactgtttg caactttaa ggaatgt 457

<210> 5505  
<211> 483  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-023-Q1-E1-A8

<400> 5505

taccgatcca gaattcgagg gtcgacggga tcgaagacca ggccccggca ccgcacatca 60  
ctttcccctt agttgctcga cactactggg ttactatcga gtgccgaggg tgagacctct 120  
tcagcacttc taatgttaac gttgtagtgt agctattcgg tcgtggtcat cgagggtgat 180  
ttctctctta accacttccc aagtctcaga aaggtaacga tgctatcttt gtcgtcatcg 240  
accaattctc gaagggtgct cactttctgc cagtcaagga gactatcact gctagtcaat 300  
tagcaaactt gtatatctcc agaattgtgt cactccacgg cattccgaag gagatcagtt 360  
cagaccgtgg aagtattttc actccgaagt tctgggatag ttccaagag gcaatgggaa 420  
ctcatattac ctggagcact gcttatcatc cccaatcnca agcccaagtt gagcgagtca 480  
atc 483

<210> 5506  
<211> 262  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-C2

<400> 5506

ctctccaatg ttgatgtaag taactgtcag atgttgagtg tcttgaaaac tttctgataa 60  
ttgtgggatt tgctttgtaa tggtaatcgt gaaattggtg tggttgaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180



agcggccgct caaaaggatc aaagctaacg tacgcgtgaa tgcaacgtca tagctcttca 240  
aaagtgtcac ctaaattaaa tt 262

<210> 5507  
<211> 138  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-G7

<400> 5507

aactaggcgt gcatgctagc tcagaccgct gcgaaagtgt caccgtaatt caaatcactg 60  
gccgtacgtt tctacagcgt tcagactgac agaaccttgt cataacgtaa catatccgtc 120  
ttggattata tctaccga 138

<210> 5508  
<211> 306  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-H5

<400> 5508

ggtccacggg ggaagaggaa ggaaggacat ggagttattc gtgacgtggt taaaactctt 60  
gagggtttttt ttttgaaaaa aagcaaatac actgccccgt ggacaacttt tctcggacag 120  
agggagtatt atagaagaaa atgttgtatt gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaacggtca aacaaaagga 240  
tccaacctta cgtacgcatg aaagctacta catagcccat caagacagtc atcataaatt 300  
caattc 306

<210> 5509  
<211> 461  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-A9

<400> 5509

ggtacgcctg ccggtaccgg tccgaaattc ncgggtcgac gggcagcggc ggcggagtgt 60  
 gtggtgggtg ttccgcgcac acccaacagg gatgccacgc gcactatact atgccgggta 120  
 gtgcgccacc gatgtagcct cccagttgga gttgttgtct gatgacagtg gtgtggctga 180  
 gcgaccacga tggaccagcg ccattggtga ttatgggaga agcagacgag ataagctaca 240  
 gggagggagg ggaaaatgcg acgcaggact cgcgagccgt gagggtttat atagtaggcc 300  
 tgtaagtatt ggatttttgg tgatttcacc gagtcgggtg ggaagctcgc gcaggaacct 360  
 gcgaggttac gcaggaatg agctcactga cgattcattg gcaccaccgt tttggcaaaa 420  
 gaacgcccc gcgcgttgca caagcttgcg ttgtacgcct a 461

<210> 5510  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-C12  
 <400> 5510

ttcccggggt cacgggtcct cctacctcct aggcgcgcac cccttgctcc tatataagta 60  
 gatccatcta gtagcttttc cttcggatt tgtttagtta aaagttagcc attgcaactt 120  
 cgtgtacttc gtttgtgtcc aacgaccaga ccaagaccgc ttacggatcc ccacctttat 180  
 caatacttca tacatattca caatattcag attgctttta tcatattctt gcttgttctt 240  
 tgattgcttg caggaataga cttcgtggt cagggtgatc gtgctccggc gtggtcaata 300  
 acctcaagag attggtttag cgattgctaa ggcgcgacgt cctcgcacgt tcatagtcgg 360  
 atcgtgaaag tcgtctccag caaatcgata gttatcatct catcgaaaga tcgggacacc 420  
 tcccgccct atc 433

<210> 5511  
 <211> 206  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-E10  
 <400> 5511

ggggttggtt caagacggca gaaaaatgg tactaatgta acaacgaaac cagataaatt 60

cgcttgcct gcagcaacaa tcagtaatca tgcattgaata aataatggc acaataccaa 120  
 aggggcccgc ctaaaggatc aaagcttaat ttcacatgca tgcaacttca aaacccttca 180  
 aaagtgtccc ctaatttcaa ttcagg 206

<210> 5512  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-E6  
 <400> 5512

cgggcacaca ccatatacct tctcaaaac agccaccata cctatgtatt atggcatttc 60  
 catagccatt ccgagatata ttgccatgca actttccacc gttccgttta ttatgacaca 120  
 ctccatcatt gtcattatgc ttagcatgat catgtagtgc acatcgtatt tgtggcaaag 180  
 ccaccattca taattctttc atacatgtca ctcatgagtc attgcatatc ccggtacacc 240  
 gccgaaggca ttcattataga gtcattttt gttctaagta tcgagttgta attgttgagt 300  
 tgtaagaaaa ataaaagtgt gatgatcatc attattagag cattgtccca gtgaggaaag 360  
 gatgatggag actatgattc cccacaagt cgggacgaga ctccagaaaa aaaangcggn 420  
 naaaaaaaaa aaaaagcggc cgctctagag gattcaagct t 461

<210> 5513  
 <211> 142  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-F3  
 <400> 5513

gcaacgggaa cggaagaaag accgggaaca caaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 cgggcgctcc aaaagattca aacctaactt cgccttcaag ccaactcaaa acccctccaa 120  
 aatggcaacc aaattcaaat ca 142

<210> 5514  
 <211> 236  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-F8

<400> 5514

cgaggagattc acaggagaga agcgacggag ttagaagttg taaatatgca ttgttgatc 60  
gcgacctgaa tgaaataaac gaaataatgc tcttggtcaa tcggcaaaaa aaaaaataa 120  
aaaaaaagaa aaaaaagagg acgcacaaga tgatgaaaac agatgatact actgcatgcg 180  
acatcatagc tcttccatat tatcaactaa atacacatca caggctgctcg ttaaac 236

<210> 5515

<211> 136

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H4

<400> 5515

tgacacataa acaaaatgga tacggaaaaa actcatcaaa aatgtcaaaa aaaaatcggc 60  
cccccaaaag gatcaaact aacttaccct tgaatgcaac ttcaaagccc tccaaaattg 120  
tcaccaaaat tcaatt 136

<210> 5516

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A10

<400> 5516

attcccgggt cgacgggtac agccactacg gtcgctcgac gacgaagtcg gcgaagagga 60  
gcggcgga gaagcagacg agcaagatcg tcggcttcgt gaagatgcac ttcgtcggca 120  
cctccttccc gccagctcga gcgaggatc ggttggaacg cagccgcgcg cctgctatt 180  
cgtcatacaa cgactacgag tacgcggcgc agtggaacgc tgtggttccg gcgacggcgc 240  
cggccgtgga ggaggaggtg gtggaggtgt gcgacgacac ggcggagtgc gggtagctgt 300  
gttggtgga ggaggagagg tcgtcgggtg gcgtgccggc gggcgaggac gacggcgccg 360  
aggctagtcc ggcggtgaac gagatcgaca ggctggcgga gaagttcatc gcgaggttcc 420  
acgcgaagtt cttgctggag aagcaggagt cgtacc 456

<210> 5517  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A12

<400> 5517

```
gtacaggtcc gaaattcccg ggtcgacggg gcaccctctc tctcctccat ttctctctc 60
ctcctgccac cgatcccgaa ccaggaggga acccggcgcg aggagggcaa aggaagagaa 120
gaggagatca ccgagcccag cgcgcgca ca ggacagcagg cgccgcgac tcgcacagga 180
gcgagatgg ggctcacgtt cacgaagctg ttcagccggc tcttcgcaa gaaggagatg 240
aggatcctca tggtcggtct cgatgcggct ggtaagacca ccatcctcta caagctcaag 300
ctcggagaga tcgtcaccac catccccaca atcggttata atgtcgaaac tgtagagtac 360
aagaacatta gtttcaccgt ttgggatgtc gggggtcagg acaagatcag gccctgtgg 420
aggcactact tccagaacat cc 442
```

<210> 5518  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-B4

<400> 5518

```
gggtccacct ccgcgacga agtgacgac atgatggcag agatcgacac cgacggtgac 60
ggcttcacg acttcagca gttcatctcc ttctgcaacg ccaacccggg gtcacgaag 120
gacgtcgcca aggtcttctg aatcagttca tttcacctca gccgtccgtt ccaggagccg 180
atccatctac gtacggcttc gtatatcaat ttcacgcaac tacctactcc ggtcccgatc 240
cagcctcagc ttcacctgag gccggcccta aatttggttg atcaattctt ttgctactag 300
tagtaactag tgatgatcac tggtgcatca tttaattatt tattttatat atcatcacia 360
gtttcctgtg attcctttct ttctatacct tttgtcgat tgcngctcc agctcgatcg 420
aacgattcat gctgctaatt gtttgtg 447
```

<210> 5519  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-B7  
  
 <400> 5519

```
gtacaagtcc agaattcncg ggtcgacggg ggtatttaga tatttgctgg gagaaagaag   60
agatagatca agagaacagc tcagcactgc ggaaaacaaa gtcaattata ctcacaaata  120
gttctgcatg caaactgaag ctgggagatg tggaggggtgc tttgttagat gcagactttg  180
cactgcgtga aacagagggc aacgcaaaag cttttttccg tcaaggacag gcacgcatga  240
cactcaagaa tattgatgct gcagttggga gcttccagcg tgcgttgag ttggagccaa  300
acgatggagg aatcaaacgg gagctggctg ctgcaaagaa gaaggttact gacagacgca  360
atctggagcg gaaggcattt tccaagatgt tcgagacgtc aggaagttca gagaaaagtg  420
atggagtatt ggcagcaagt tcagag                                     446
```

<210> 5520  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-C10  
  
 <400> 5520

```
tccagaattc ccgggtccac ggggacgacg acgtggatgt ggacgagtcg gatagaaagc   60
tcttagatga tgaaaagaaa cccgatatca cgaaacgacc acacactcct attggagatg  120
aggtggaatg caagaagcca aagatagcag aaggctcaag gtgccaagga gaagaacctg  180
aggctggagg gataaagaat tcctcctggg tctgatgaca ggggaatgca gtaaaccacca  240
gaagcatcaa aactatgatc tggaacagta tcctgaataa actatcttct ggattatgaa  300
tgaattctga agcatggggc tataagttaa ttatgtaaca tggatttgta actatggtgg  360
atgttaagtt aacgttctat cagtgcacgc tgaatgcgtg cccaaaaaaa aaaaaaaac  420
atcaaaaaaa aaagcggccg ctctag                                     446
```

<210> 5521  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-C2

<400> 5521

```

gggtccgacat tcacgggtcc acgggatata tggaattgga gttgaggtcg gtggagcgtc 60
agggggccca tgatgcaggg gggctcgccc aggggggtan gcgcgccccca acccttgcg 120
acagggtgtg ggccccctaa cgtggatctt tcttcagta tttttttgta tattccaaaa 180
ataatctccg ttgattttca agtcattccg ggaactttta tttctgcaca aaaataacac 240
catggaaatt ctgctgaaaa cagcgtcagt ccaggtagt tccattcaaa tcatgcaagt 300
caaagtccaa aacaaggga aaagtgtttg gaaaagtaga tacgacggac acgcatcaat 360
tcccccaagc ttaaacttat gcctgtctc aagcaattca gttgataaac taaaagtgat 420
aaagaaaaac ttttaciaaac tcc 443
  
```

<210> 5522  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-D10

<400> 5522

```

gggtcgacgg gggtcatatc gacaatcaac cgtgatggcg tccaaagtcc ttcttgcaat 60
cctcctctc gccgcggcga cgccagcgtc gctggctgcc atcgatatgg cgcagatgct 120
cgctgacaag cccagtagc cgaccttctt gaggtcctg aaggagacaa aggtcgccga 180
tgacgtgagc cggtcaagt cggcttccgt gctggctgct cccgagaagg ccgtaaagcc 240
actcttgagg gtgccggccg ccaagcagcg gacgatctc cagcatcatg tctcatcaa 300
gtatttcgac cccatccage tgggagagat gaagaccaac gttgccaaagc tccagaccat 360
gctctccaac acagataagg acatgggcac catcgactac tccaaggaca aggacggcca 420
gatgtaccta cgctccccag gcgccgatag tg 452
  
```

<210> 5523

<211> 464  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-D11

<400> 5523

tccagaattc ccgggtcgac ggggtcttggg gatgctatgt ttaatgaaga tgatattttt 60  
 agcctcccaa gttttgatat gcaaagttgt tatgatgata gcatgcctct tacttatgat 120  
 tatattgatg aaagtgggtc tggaagagtg tcaactttag gaagtgatga ttccactatc 180  
 ttgggagagg tctcaatcga ttatgatgag aacaaagttg gtacttatga tgattattgt 240  
 gatgaaactt atgctataaa aaatagtgac gattatattt ataaaacttg tcatgattat 300  
 gattaccctt tttcttaacg ttactctttt aatgtggaaa caaatTTTTag tgttcaagtc 360  
 tcttatgata ctcccgctgt tccgaatgag aagaattttg cttatgtgga gagtagtaaa 420  
 ttttctatgc ttgtagatta tgaaaagaat gctttagggtg ctgg 464

<210> 5524  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-D12

<400> 5524

tccagaattc ccgggtcgac ggggaagcgg tcgttcgatg ccgagacgcc gcggcggcgg 60  
 gagtcggcac gcagcaacga ggcggtcgag gaggcgcgga tcaagctgct ggagctgcgg 120  
 caggtgaaca aggtgaaggc gctcgtcggc gccttcgaga ccgtcatgga cgacaaccaa 180  
 agccccaccg ccgcccga ggcggggtc aacctcggcg cctgaactac gactacattc 240  
 gatgagcatg aagctcgatc gcgtgcgcct cctcctttat ccccgctact ctttaatcac 300  
 ccatcaaccc aatttgctgt cgtcgcacac ttatctataa ttacgggtatc gcttatattc 360  
 tgcaaggagg aagatgatgg aggggttata atcatgatgt aataataata atgatcatgg 420  
 aggaagatgg tgtattttac ttataactat cgtctacacg atcaat 466

<210> 5525  
 <211> 458  
 <212> DNA



<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-025-Q1-E1-D5

<400>      5525

```
attccccgggt ccacggggga ctggcaatgg cgcgcgccgt cgccgtcggc gcgttccaga   60
ggctcaaggc gcgctggggc tgctccaga ggcgcaccga ggtcaagggt gacgaccttt  120
ccgtcatgct cggcgctgc tgccgctcc acaacatctg cgagcgcagc ggccaaccct  180
tggacctcca gctgctgcag ggcctggagc tcgacctaga cgacgacgac gaccacatgg  240
tcgccaatga ccccgctgcc tccccgcgcg ccgagcaaat gcgagacacc atcgcccaca  300
acatgcttca ccatggcaac aagctggccg gcgctgggac gtcttcctac aacctacaag  360
caattactgg tttccatttc ttgaccgggt cattaaccgc attcaaagtt aaaggaataa  420
ttaaaggagt agagcaccaa aattcatttg ttattttg                               458
```

<210>      5526

<211>      457

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-025-Q1-E1-D8

<400>      5526

```
gggtccacgg gataataatg gtgcggatgg cgatgttccc aagagtgggt ctgtcgaaga   60
cgaggagcat attgcttctc tgaggcctaa aagatcaaag agactagtga ggagcacggg  120
tgaggataag gaatccgttg ctgcttggtg tgttgagaaa cctgcagatg cagctgaaaa  180
caatgacaac aatgatgcag aagagttgca atacccttca gctagtggga cctactgggt  240
tgacctgatg agaacataag atgcgaatgg caagactcta atttttgggt tcgagtanga  300
gcatcaaaga tggcaccag aggaggagct ctggatctgc ttaagggtgt acgcagttca  360
ataagtactt taactgtgct gtgcagcttc ttttcagaaa cctgggactg caacttgggt  420
gcagttgcag tgagctgagc ccaatgatgg ctgttat                               457
```

<210>      5527

<211>      413

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB104-025-Q1-E1-D9

<400> 5527

attcccgggt ccacgggttc tccacatttg tacagtgagg cagggtccgc ttctagccag 60  
cattatgcta cattgtactg cctgtaactt gtaatggagt ctggagcgat tcagtgtgtc 120  
tgtcagttgc ggtgcggcgc atccgcccga cggccatgat tggcgtgtca gtctttcgac 180  
acagtacgtt attcgcata gtgtgtgtgt gtgtgtgtgt gtgtgtattg ctgtgaaaaa 240  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagaaa aaaaaaaaaa 300  
aaaaaaaaa aaaaaaagcg gccgcccaga aggatccaag cttacttacc cttgcatgca 360  
acttcatagc ccttcaaaag tgtccccaaa tttcatttca ggggccgtct ttt 413

<210> 5528

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-025-Q1-E1-F12

<400> 5528

tccaaaattc cggggtcgac ggggacggag atcgggttcg tccacacact cccgccgcca 60  
ccaccgccgc gaaccggaga gcgaggccga caccgccgcc gcgatgaggg ccaagtggaa 120  
gaagaagagg atgaggaggc tcaagaggaa gcgccgaaag atgaggcagc gatccaagta 180  
ggccgtaagc atcatcttgc atccaggcag cggaactctg aggggtgatg gcattgtcta 240  
gtgattcttg atttgttctg ttgttttggc tgcggaagtt gcttttacct gtgtttggtc 300  
aaatttagtt gtttaatact agtctggcta tgttccagta ctgagtttta tgtaatgtga 360  
ggattatatg tgtttgtgac tgaattttat gcacctatta tccttgagga aaaaaannnn 420  
aanaaaaaa aaaaaaaaag cggccgctct 450

<210> 5529

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-025-Q1-E1-F9

<400> 5529

taccagtcca aaattcccgg gtccacctca ggtatataat cgtaatggta ggctgcacc 60  
accacctcag gtacgagatg atgtccatat tcctaaactg aaattgaata ttccaccatt 120  
tgagggtaga tatgttcctg atatatatct tacttgggag ttagaaactg aacaacgatt 180  
tacatgttta caatattctg aggagagacg agttgctgct gctgtttgtg ctttcactag 240  
ttttgcatgt gtatgggtgt ctgaacattg tagattatat cctattccaa ctacttgggc 300  
tgctttgaaa agtgctatgc gtacgogttg gggtccacca tattaccaac gtgaattgct 360  
tcaaaaattg cagcgtttaa gacaaggga aaattctgta naagaatatt atcaggaaag 420  
tgaaacttgg atgattgat gtggtattgt 450

<210> 5530

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-G10

<400> 5530

attcccggt ccacggggta atgctcaaac acatatccat taacgatgtg tgggtcaatg 60  
aaccaacat catggatgtt cttactctg cattccttaa tcttcattct gcatgtataa 120  
tagcggacac aacaatatag ttaggacata tatatagtgc aggcaatatg aacgagatgg 180  
ggtagaaata aatcacttac agaacgtagc aactgatgat agatttgtcg agctcgcgca 240  
gattgaaaag ctggaacaat tcactcagat gaatttgtac atagtaatct ttgaagtgat 300  
gctcatatct aacttcaca taaatatatt ctttggcggt tttatttttt atgtaaccct 360  
tgtaccattt cagcagacct ttcatttatg gaggtagatc ctgttcctgc gcaggctcga 420  
cgagaggccc attcttcaca tatgtaatta ctacctct 459

<210> 5531

<211> 290

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-H11

<400> 5531

cggggtcagt tcagtcttct acagaatata gtctcatca tagatcccga ggactccaca 60  
aagtactatc cccgctttaa cctggaagat acttcaagtt ataaggactt ggtcgaacag 120  
atcatcaaat ttccttatct tattagagaa ggctatttc ttcttttagtg tcggtgatct 180  
tcgattcact ggccgtcgaa taactcgatc ttactattg aaaccttctt gtttcctatc 240  
ttactttcgt tgatgtatat cctactttcg ccacctggat tgatctccat 290

<210> 5532  
<211> 473  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-C5  
<400> 5532

attcccgggt ccacgggagg cggataacgc tcggagggtg ataattattca tgatgcgtca 60  
agttgctcag cgacaccgaa cacaaggct ccagagtcca agtggcatgc ctggagatgc 120  
cgaggaaggt tatgcggtta gcagcgggtg cgccaatgga accaccccggt accctttcac 180  
cttggagggc gacgacgagg atgacatggc tctggccgga ggggaagggg cgggtatgct 240  
tagatcagac aggcgtcgcc ggcgacgcg taggaaccgt ggaagactgt ttttagattc 300  
taattgagaa ggcaggggct ctgtcaccag agtacatgca cagctgattc cctgggtgcct 360  
ggcattcatc aattccaacc aaaatttact tgttcatgat cattgtacca aagtagtttg 420  
tcttaacctc agtcatcat tgctttccat caacctggtt tcattttcac att 473

<210> 5533  
<211> 475  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-026-Q1-E1-D8  
<400> 5533

attcncgggt ccacggggcg tatgaaaaag gtagacatca aaacataaat ttgaaaatat 60  
gttaatcatg catttataaa acggtaaaca tgtactgtat aaaacaatgt ttctcatgta 120  
aacaaaaaat atagaggggtg tatgtaaaaa agtccacata aaaattacta caaatgtta 180

atcatgtatt aaaaaaatgt taattgtgtg ttttaaaaaa tgctcctgat atatatggaa 240  
aatttacaat gtgtataaaa aagttgacat caaaatatat atttgggaaa caaagtgtaa 300  
tcatgtgttt gaaaattttc aaatgtatgt gaaaattgtt gctgtatacc aaaaaattaa 360  
tgtgtacgaa aaagaaaata tgcatacaaga cttatatatta aaaaaaatgt tgatcatgta 420  
tttaaaaatt gttaaacatg tattaataaaa tatacccgat atatacgaaa aatat 475

<210> 5534  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-E1  
<400> 5534

cggtccgaaa ttcacgggtc gacgggaagc ttttatggac aaaggaataa aggggtggcaa 60  
gagcctaagc ttgggggatgc ccaaggcacc ccaagatatt caataatagc caaaagccta 120  
agcttgggga tgccccggga aggcatactc tctttcgtct tcgttcattg gtaactttac 180  
ttggagctat atttttattc gccacatgat atgtgttttg cttggagcgt cgtgtattat 240  
attagtcttt gcttttttagt ttgcaacaat catccttgct gtacacacat tttgggagaa 300  
gcctttttga ttagaatttg ctagaatact ctatgtgctt cacttatatc ttttgagctt 360  
gatagttttg ctctagtgtc tcacttatat ctttttagagc acagtgggtat cttaaatttg 420  
aataaattgc tagtctctca tgc 443

<210> 5535  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-E8  
<400> 5535

gggtcgacgg gactgttctg tttttgacag attctgtttt ccgtgtgttg tttgcttatt 60  
ttgatgaatc tatggctagt aaaatagttt ataatccata gagaagttgg aatacagtag 120  
ttttaacacc aatataaatt aagaatgagt tcattacagt accttgaagt ggtcttttgt 180  
tttctttcgc taacggagct cactgagttt ctattttgag ttttgtgttg tgaagttttc 240

aagttttggg tgaattcttt tgatggatca tggaacaagg agtggaaaga gcctaagctt 300  
 ggggattccc atggaacccc caagataatc caaggacacc aaaaattcaa agcttgggga 360  
 tgccctggaa ggcattccct cttttgtcca cttccatcgg taatttactt ggagctatat 420  
 ttttattcac caacatgat 439

<210> 5536  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-F1  
 <400> 5536

tgacgggtccg aaattcacgg gtccacgggg aagaaaggga agaaacgccg gaggagggtct 60  
 aaaggaacta gccaggcaac ggctgaagggt gcttctggag agaagaaaaa gaggaagagt 120  
 cggaacaaaa aagttgaggc tgaaaatgag aatgatgatg aagatgatgc tggtcctgct 180  
 ggttctgagg actcatcaat gggagaaagt gatgaggact ctgaagtgaag agaagagacc 240  
 aagagtgatg aagagcctga agcaacaccg gtgaagaaaa agtcaacaga tggtaaacaa 300  
 ggaaagaagg aagctggatt caaggcaaag gaaaaggatg catcggtgaa gaagactcct 360  
 actaaatctg taaaaagcgt gtcaaagcca aatg 394

<210> 5537  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-F11  
 <400> 5537

cgggtccgaaa ttcacgggtc cacgggccc taaacataga caaatattaa ggaaaatgga 60  
 gcttggagggt cgagcttggg gaggagaaag cttaagtagt gtgggtcggg cattccatcg 120  
 aacacctcat gtgcatanga ggtgagctag agcaccacaa agctctcccc tcgccggcca 180  
 cganaaatag agcactgtga gtgctctgct cgcgggagag gggtagatat aggcaactaa 240  
 ttggteccgg ttcgtgccac gaaccgggac taaagggcag cctttgggtc cggttcacgc 300  
 caccaactgg gaccaatggt ggtggggcag gagcgagacg cattgggtccc ggttcgtcnc 360

accaaaccgga accaataggt ccagccgaac cggaacaat ggcccacgtg gccagtcng 420  
 ccccggggt cacgaaccgg gttcaatgcc ccc 453

<210> 5538  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-F2  
 <400> 5538

cggtccgaaa ttcacgggtc cacgggggtg aaggcaagcg ccgggactag gcaccccggt 60  
 tctcatcgcc gctatgggtt catgacgaag acaattttat cttaagttag aaccgcagca 120  
 acaattgatg taatataact ctgcagtact ttaagatgaa acatgctatc ttctgtgtt 180  
 gatctttctt tgtatgtata caccctacgc ccagtgggat aggggttgccg ggcgcgtaaac 240  
 ccatgctatg gcgcttcgag gacggatcct tagcagcctg ccggggggcgc ttgctgccgg 300  
 aaaaaccaac ttgccactct tagcggggcc gcttgagctg ttgagcggac tcaaaataga 360  
 acaaggacgt tgctaata 377

<210> 5539  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-F6  
 <400> 5539

attcncgggt cgacgggaaa ggcactgaac tagtttgcaa caaagaagag agaaaatgtc 60  
 taccgctgag gcaacccgtg aggagaatgt gtacatggcc aagctcgccg agcaggctga 120  
 gcgttatgag gaaatgggtc aattcatgga gaaggtggcc aagaccgctg atgtaggtga 180  
 gctcactgtt gaggagcgca acctgctctc tgtggcttac aagaatgtga ttggtgcccg 240  
 gagggttcc tggaggatca tctctccat tgagcagaag gaggagagcc gtgggaacga 300  
 ggcctatgtc gcatcaatca aggagtaccg taccaggatt gaaaccgagc tcagcaagat 360  
 ctgtgatggc atcctcaagc ttctggactc ccacctgtgc ncctctgcca ctgcagcaga 420

gtccaagggtg ttctatctga aaatgaaggg tgactacca

459

<210> 5540  
<211> 184  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-026-Q1-E1-G12  
  
<400> 5540

aagccaagta aattaacaaa aacaaaaaaaa agtagttaaa ttggggacgt caaaaatggt 60  
tcggatttaa ataaacctta aatgaaaaaa aaaaggggcy gctcaagggg ttcaaagttt 120  
aatttcgctt gaatgcgatt taaaacctct tcaaaagggt aacctaggtt aatttcaagg 180  
gcat 184

<210> 5541  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-026-Q1-E1-H3  
  
<400> 5541

gggccgaaat taccgggtcc acggcgcaga ggtgtaagaa acagaagggg tgctctgttt 60  
ctcacatcga gtgctctgtc gagcagaact actgatcgtg atcgccccga gcacgggcgg 120  
ggatatatt gaccatcgag tgtcatgttg ttctcgctgtg ctgggggtttt gttgtcgggg 180  
ttttgtcgtc agatttcacc agctcgtttc tttctcgggt tctttgtttc tttcacacgg 240  
taaatgcagc taccactcga ttcttggcgt ttgttggttg taaagaagat cgtagcttgt 300  
aagtaaaatc gtttgcagtg taaaatgtac aaaggtagca tgggaaatgc ttaacagagg 360  
agtcttggtc ttgcactcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagc gggcgct 417

<210> 5542  
<211> 53  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-A12  
  
<400> 5542



agtcgtatta aaatctgcgn ctcgtgtgtg tgttctttct gtggtgcggt gag 53

<210> 5543  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-A4  
  
<400> 5543

gggtcgacgg ggaccacaag gagaagaagg acaagaagaa gaagaaggac aagaagcacg 60  
gcgagggcca caaggacgac gacggccacg gcagcagcag cagcgacagc gacagcgact 120  
gagccagctc cggccgcgct ccggcagcag cgtgcagtgt aggcgagatc gatgaacgct 180  
tgggagaagt gtggcataca tatatgttgc agggtttggg gctgtgtgta gcatatgtat 240  
gtaatgcgtg acatgtctca tggatcttgt gatgtataat aattagccgg ctgcactgca 300  
ctgcacggtg cttgtaataa taacgttaat gaatcatgtt ggcattgatg tgaaaaaaaa 360  
aaaanaaaaa aaaaaaaaaa aagcggccgc tct 393

<210> 5544  
<211> 371  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-A7  
  
<400> 5544

cgggccgacg gggatcttga gcaaataca caccaaagtt tgatgatgac aaaaggctat 60  
gaggagatgt ctattgcgta ggtgcaaaat ctccatcgat acagatcgcg ctaggtgcca 120  
gtttttccgc agagaacggg ccccgctggt aatgtgctgc aagattgatt gacagatctt 180  
aagcaggtcc tcgcaagtcc tcacgccggt gatgatcagt ttgtcagcca gatacataag 240  
gatcgtaata gaaacggggg caatgcctaa caaccagtaa cgtagattgt caagagacgg 300  
cgacacagct catcatcatt ctcttgata ctctgcacag gctagtccac ttttccacag 360  
aagactcaat g 371

<210> 5545

<211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-A8

<400> 5545

gtaccggact agaattcccg ggtcgacggg atgatgatag ttgatttgat tctgctgaaa 60  
 aacagaaact ttgtgctgct gaatttagtt ttgttaaatac acagaacttt ttcattgatt 120  
 cgtttttctt ctgatcaata gacaaaatttt acaggacttc ctattttggt aggattttta 180  
 gagttccaga agtttgctgt agttatagat ttctacagat tgttctgttt ttgacagatt 240  
 ctgtttttcg tgtgttggtt gcttatcttg atgcatctat ggctagtaaa atagttaa 300  
 aaccatacag aagttgggat acagttggtt taacacccaaa ataaataaag aatgagttca 360  
 ttacagtacc atatgtggtg gttttgtttt ctttcaactaa cggagcttat aagatttcct 420  
 attgagtttt gtgttggtgaa gttttcaagg ttttggttaa agctttta 468

<210> 5546  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-A9

<400> 5546

gggccgacgg gtacggcggt tcgataacta atagattttt gcaataagta tgtgagttct 60  
 ttatgactaa tgttgagtcc atggattata cgcactctca cccttcacc attgctagcc 120  
 attctaatac cgcacacctt tcgccggtat catacaccca ccatatacct tctcaaaac 180  
 agccaccata cctacttata atggcatttc catagccatt ccgagatata ttgccatgca 240  
 actttccacc gttccgttta ttatgacacg cttcatcatt gtcattattgc tttgcatgat 300  
 catgtagttg acattgtatt tgtggcaaag ccaccgttca taattctttc atacatgtca 360  
 ctcttgattc attgcacata ccgggtacac g 391

<210> 5547  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-B7

<400> 5547

aattcccggg tgcacgggga ggaggaggcc acgtcgggag ctgagggggcc ttcagctcat 60  
gttagttctt tgctcgagtg acagattgtt ttgttttgtt ttgttttctt tgctcgtgtt 120  
gaaatacagg tgttgatgat cgtgacaact gtttttcttc atttaggggc aaatgtatgt 180  
gtggctgcag tccccctcta tattgacatg cgatctattg tatttatttg ggtangagg 240  
gtattttaagg atcactttgc cctcaaaaaa aaaaaataaa aaaataaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaataaaaa ccaaaacaaa aaaaaaaaaa aaaaaaaaaa 360  
aagggggccgc ccaaaggtt caaaccttac ttacccttga atgcaa 406

<210> 5548  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-B8

<400> 5548

gtaccggact ggaattcccg ggtcgacggg gaaaatgctc aaatgcatga gatgaacacg 60  
tatgcaaatg cacatcacat gacgacatga taagagatgc atggtcacga caacagcaca 120  
cggtgacaaa gagccgaacc cgggaaaata gattaactta acgccgaaa cggcaatagt 180  
tggcgtacat atacggaacg ttacatccgg ggtgttacac ggtgtcccaa cttagcccat 240  
cacaagatct cacggtcatt gaaggatatt ccttctctca agacatccga taagccggat 300  
ccggtaacag acatctcaat ataggaaaca tgtcagcata gccagccgaa tgtgccgaca 360  
tatcccgata tgagctgcac atatctcggt ctacacggcac actcagactg tccaaacctc 420  
cggtaaggca tcccanaatt gcccttggtg 450

<210> 5549  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-C2

<400> 5549

cggtccagaa ttncgggtc gacgggtatg agaaatatca tggatactac ggaggggaagg 60  
aggaatcgag gaaatccaac tacaccgatg tggttaataa atattatgat cttgctacta 120  
gcttctatga gtatggctgg ggtgaatcct tccactttgc tcacaggtgg aatgggggaat 180  
ctttaagggg aagcatcaaa aggcacgagc acttttctggc tttacagctt gagttgaaac 240  
caggggatgaa ggttttggat gtcggctgtg gaataggcgg gccattaaga gaaatttgca 300  
gatttaacct caacctcagt tactggattg aacaacaacg actaacagat aactagggga 360  
aaagcgctta atcggtcggg angacttggc gctacttgtg attttgtc 408

<210> 5550

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-C3

<400> 5550

ggtccagaat tcccgggtcg acgggccctt ttgggtgtta atcacatagc aatgtgaact 60  
agattattga ctctagtaaa ccctttgggt gttgatcaca taatgatgtg aactatgggt 120  
attaatcaca tgcagatgtg gggattgggt ttaaatacaca tagcgatgtg aactagatta 180  
ctgactctag tcaagtagag gcatactaata gacactatgt ttgtctatgt attcacacat 240  
gtattatgtt tccgggttaat acaattctag catgaatact aaacatttat catgatagaa 300  
ggaaacaact aataacttta ttattgcctc tacggcatcg atccttcaat ctc 353

<210> 5551

<211> 201

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-C5

<400> 5551

aattccccggg tcgacggggg aatcaacaca aaacaaaaac gaaaaaataa gataaagaag 60  
aagagtcaaaa aatgcataaa aatacctata catacaaaac aaaaaatcaa aaaaaattcg 120  
gccgccccag aggttccaac cttaattacg cttgaatgac atctcttgac gcttcaaaat 180

tttcaccaaa tttcaattca a

201

<210> 5552  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-C6  
  
<400> 5552

aggtaccgat ctggaattcc cgggtcgacg ggggatcaaa tatgataatc tatcttagtt 60  
gcccctggca gaacacaatg ttactgtcag gtcgccatcg gttatatcga gtgagtgttt 120  
gtggctggcc gagctggctct gagaactgct gaatgcaatc tatecttaaa tttggtaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaata 240  
aaaaaaatga aaataactaa ccataataaa ggaaaaaaaa aaaccggcaa aaaacaaaaa 300  
aaggggcccc ccaaaggtt caaagctaag ttacccttca atgaaagttc aaacctcttc 360  
aaaggtgccc ccaaatttca tttcaggggc cttcttttaa aaacttggtg acggaaaaaa 420  
ccctgggttt acccaaatta aacccttcta aaaaaaaccc cctttttcca 469

<210> 5553  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-C7  
  
<400> 5553

aattcccggy tcgacatcgt ctatcacaac tggctgctca tgtacctcaa cgacgaggag 60  
gttgagaagc tgattggcag gatagtgaa gggctgaagc ccggtgggca tattttcatc 120  
agggaatcgt gcgccacca gtctggggat tccaagagga aagtgaacct gacgcactac 180  
cgggagccga ggttctacac caaggggttt aagggaaggc actcctaaga ccaagaaggg 240  
aattcctttg agctttctct ggtaacttcc aagtgcattg gagcttatgt gaaaagcaag 300  
aagaaccaga accagatatg ttggctgtgg gagaagggtca agtgacaga agacaaaggc 360  
tttcagagat tcttgacaa tgtgcagtac aaatccactg gaatcttgcg ttatgagccc 420  
gtgttttggg aagggttatg ttagcaccgg tggatt 456

<210> 5554  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-D2  
  
 <400> 5554

ggtccagaat tcccgggtcg acgggtatga atgtttagtt gctcaacgtg ttttgagtgt 60  
 gcaagttaca caagctgagc aaaatcagag gcataatttg tttcatacga agggagttgt 120  
 gaaggaacgt tctgttcacg tcatcataga tggagggagc tacaacaact tggctagcat 180  
 ggagatgggtt gagaagctat ctctcaccac aagacctcat ccacatcctt actacatcca 240  
 atggttcaac gacaacggca aggttaaggt aacatgtatt gttcgtgtgc attttagtat 300  
 ctctacataa tgctgattat gttgattgtg atgtgggtacc tatgcangca tgttccttaa 360  
 tacttggtag aacatggcaa tttgataaaa attctgtaca ccatggtaga atcaatcagt 420  
 atactcctgt tcataaggac aaaaatatta ctttgcttcc tatgac 466

<210> 5555  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-D5  
  
 <400> 5555

taccgatcta gaattcccgg gtcgacgggg gccgtgatcg ttatgccagt gaccggtacc 60  
 cctctggtgg tgaccgcttt ggtgcagaca ggtatggtgc agctccagac cgttatgcac 120  
 caagtgggtgg tggaggtggc tatggcaggg agcgggagag aagctacgag agagatggaa 180  
 ttcgtggtgg tggcgcttat gacaggagtg gccaagggg cgggtgcaagc tatgacaggg 240  
 acggcccaag gggcggcatc ggtggtggct atgacaggga cgggtccacgt ggaggcggcg 300  
 ccgactatgg cagcggaggg cctgctcgct acgagggagg aggttacagg gagaggcctg 360  
 cgccgtatga ccgcccagg ggaggaggac gcttcgacga ccgctattag tgacctgttg 420  
 ctgcantcga gctatgtatt tgcgttttaa ctctttcaag tttggcatgg cc 472

<210> 5556  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-027-Q1-E1-D8  
  
 <400> 5556

cgccaggtac cgatcaggaa ttcccgggtc gacatagccc gcttgcgggg cagaatcaca 60  
 tcgtaacctt ataaccacga tgtacgatcg tgttggtaca caatacgtat gagaaacaaa 120  
 tcacaaggaa aaaaatgcta cccacagcag ccgatctctc cttcctcccc ccgtcgacgg 180  
 gaagctcgcc ggcggcgagg tggcacgggc gacggacgtc ggaggcgaaa ccgctcgacg 240  
 aaacagaagg agggagcagc gctgacgag gcgttgcggc ctggggcgta cggcggcgag 300  
 atcgatgctc tgtcgccggc ggcggttgg ggacggtggc gagatcgatg ctccagccgc 360  
 catcttgctg tttccctttc accgaggata tgcatttgcg aacgtgattt gacgattaca 420  
 acctccaac cctcccaggg ccggcccata aagacgga 458

<210> 5557  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-E11  
  
 <400> 5557

gggtcgacgg gtcttatacg atggacttag aggattctac cactgcttgc aaacttcac 60  
 aatggggtag tgctagtga cctcgcaaat ctgaatttag aaattttctt gctagtataa 120  
 ctgtggggga atctagagat atagcagaag ctaccatagg gagcattcat tttcctgcta 180  
 tacattattt tgctctcttc ataggtagg gcataaatgg taaagatgaa gcatgtcaca 240  
 tgtgtgtccc tgaccttcag tattcttagg agtgctgtgt taggagacaa atcttataat 300  
 ttgggagcca ttgttgacg taggttgcata cataatagtt ttaatggaga tttctttgca 360  
 ngaatttatg caaccgctt agctaatttc ctggtgtgga catacgtgat gatgat 416

<210> 5558

<211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-E12

<400> 5558

cggtcaagta ttcccgggtc gacgggtggc aatgccaacg atatgttgat cttcaatgat 60  
 tttatccgca cccagtcgct agttgaacta cccatcaagg gtaggacgta cacgtggagt 120  
 aacatgcagg atgacccttt gctgggtgcaa ttagattggt ttttttcttc agtgactgg 180  
 tctttcttct accctaatac cactgtatcg cccttgggca agcctgcttc agatcacgtc 240  
 ccctgcgtca ttggcattga tttgtgcac ccaaaaagca aggtgtttca ttttgaaaac 300  
 tactggatac aacattcagg gtttcacgag atagtgaat gctcttgaag ccaaccttgt 360  
 catgaggcta actcagcggc tttgatctgt agaaagctaa agaagctgcg 410

<210> 5559  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-E2

<400> 5559

ccggtcaaga attcccgggt cgacgggggc ggataccaaa accatcacac tatataataa 60  
 caagcaataa taaaagtaag aaaattagac aagtatctat ctaaagtaag aatttttctt 120  
 tcaggagaag attagaacaa gaggtcatc acggtgggtgc aagcgacgag attcgcgccg 180  
 gcgatcgacg gccgtgaaga cggggacngg acgtgacaga ccgctaaacc tagacaaatc 240  
 tcaaggaaaa tggagcttgg aggtcgagct tcgagaggag aaagcttaac tagcatggct 300  
 cgggcatttc attgaacacc tcatgtgcat aggaggtgag ctagagcacc caaatgcctt 360  
 ctctcgccg gccagaaaaa atagagcact gtggagtgtc ctgc 404

<210> 5560  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations



<223> Clone ID: LIB104-027-Q1-E1-E6

<400> 5560

aggtaccgat caggaattcc cgggccgacg agagaaggta acaccaaagg aaaagaaaac 60  
acgtacacag aaagtgaata tagaagtgtt caagactgtg aagcgggagg ttcctggtat 120  
atctacgttt cattgtactt agttaagttg atgttactgt tgttttttct cgctgccgcc 180  
atgccatgaa caggcgaggc aggcagcttc tcaaacttgt gttgttgtaa cttgtatgat 240  
gggagcttaa gtacattact ttgtttcata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaagaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
aaaaanaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaggg ggccccccaa 410

<210> 5561

<211> 428

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-027-Q1-E1-E9

<400> 5561

ccggtcaaga agtcncgggt cgactttgac gatccgacta cgaacgtgcg aggacgtcgc 60  
gccttagcaa tcgctaaacc aactccgaga ggttattgac cacgctggag cacgatcaac 120  
ctgaccacga ggggtctgttt cctgcgagca aacgaagaac aagcaagaaa ctaagattgc 180  
aatctggata ttgcgaatat aagatgaaag ctttattgat caaggtgggg ttctgtgacg 240  
cctttgtctg gtcgttgaac acaaacgaag tacgcgaagt tgcagctatg gcgaactttt 300  
aatctaaaca aaaccgaag tctaaacgat gccctaaggg ctctatatat ggaggaagag 360  
gggggaattt cgtggccctt ggtggagggg tccgaaatca ccctatctct tgttttccca 420  
cacatacg 428

<210> 5562

<211> 265

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-F1

<400> 5562

gccacggtca aagaatccgg gtcgacgggt tacaacaaaa cagttcttgg tgataacagc 60  
tctcttgtaa ataccaacaa gctactcacc ttactgggtcc aaacctacta gttgctctaa 120  
atgtttaaaa taactttaca attctgtttt gatacaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaagcggg cgctccaaaa gattcaagct taagtaagcg ttcaagcgac gtcaaaactc 240  
tcctatagtg taacccaaaat caatt 265

<210> 5563  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-F10

<400> 5563

gggtcgacgt tcgcccgcag gaaagcaacg agcgcgcttt cctatttagg gtcgagagtg 60  
gcactgatgg tgaaggtacc accagtgcc a tctccttgg cggacacctt cttggtctct 120  
gggtggagctg ccattgtctt cttacacttg ccggtggagc tcgatgggtgc gtccccgacg 180  
gtagcgcagc actccaaaga ggtgcgcttg ccggagtggg catccgaact cttgccggac 240  
ttggtcttct tcttcgccct gggagcttca acagcaagtg acttgcgatc tggtgcggct 300  
gctgcttcnc ggtagatctt gtcggcgcag ataagagcat ccttcttgtc gccagggaca 360  
gagatgacac 370

<210> 5564  
<211> 329  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-F11

<400> 5564

gggtcgacgg ggccgtcgat catgtctgac taactcccgt cgcttctgct ctccacatcc 60  
tacgttaggt actgaagccc gtagataact tttccgccca ggtttagaac gtcgctgcaa 120  
acactacgta tgaaaattga taaatgagat agctcctagt gatgtttctc gctgaactgc 180  
tgcgatgttg gacactttgt cagcgacaag gagttatctc ctacgcgacc catcgtggta 240

ttgtgtacat ttgcttaagg ttttgcttat cgttggtatc atctatggta tgcaattcat 300  
gggtcggcaa tcataactca tgcaggagc 329

<210> 5565  
<211> 468  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-F4  
  
<400> 5565

ggtcaagcat tcccgggtcg acgggccaga gatgggctga gacccggata tggtttaaag 60  
cctgtagttg taatcattgt tatggtagaa cttgtagtgt aagacaagta tagttgagag 120  
tccgagccgg acactcttat gagccggccg ggactctgag ggctgctggg cgtcagcctc 180  
cctatataaa gggacgaccc ggcagcgggt tagaggcgag aacaatctca tcgagagctg 240  
ggatagcaag ttttagttccc tggatgatcg aaccctaagc aataccatct caactggatg 300  
caggctttta ccttcaccgt aaggggccga accagtataa accctcgtgt tccttgctc 360  
atttaacccc ttcaagcttt cctagttgca atgggtccac gactaagtcc tagctcgatg 420  
acaatcggcc gtgacatttc cacgacagtt ggcgccacc gtggggcc 468

<210> 5566  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-F6  
  
<400> 5566

aattcgcggg tcgacgggct ggtgaacgcg ccggggctcg tgattgacgt ggtgcgcgac 60  
gccaaggaga aggaggcgga gggggctgag ttccggctgg aggacgagat cgaccatgtc 120  
gccgacgtcg tcatccgccg gatccacaag cagctcaagc tgcacaagct cgagtcgttc 180  
acgaggttct gcgagatgat ggagaggagc gcttgatcca catccctaga agcagatccg 240  
cctccagtcc agtgaggat tatgcataag tatgcaactg gccagctcc atcacacct 300  
aagccaggat tatgtctaac ttgatccgag acccatgcat gtgagtagaa ggaagagata 360  
catccaggca agaagatgct tatcttctgc taaggtttta gtggggaagc caatgggtcaa 420

caacttggga ctttactcat tacgta

446

<210> 5567

<211> 371

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-F9

<400> 5567

cccggtcgga cgggcacccat caaaaacgtg ttcattgctga ccaggtacat accgttaatg 60

tagttgagggc tgacggggat cagatcgag tcaatggggg tgatgcttgc caccctacga 120

tcattatgct gcggtgacatg ccattttctga agatcaggcg gcatcagcaa acaaggagct 180

ggcttaaaaa gctccggcct gagggttttg agtaaacggg acagccccga cgagcacgcg 240

gcaagcggca tgggtactgag attatccaca cgcgaaacaa tgagcttgat tacctctgtg 300

gggagcgaat tccagccact cttttggcga acgctgcttg gttctgccat tggtactgct 360

tgggtttcgg a 371

<210> 5568

<211> 413

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-027-Q1-E1-G1

<400> 5568

gggtcgacgg gggcttccat cagacaggaa ctttggaat ttgctgagga aggttcacta 60

ngcaaatttc gttgaatttt ggcattgggc aatgttattg acagaaaaag gtgtcaaaaa 120

agtttggggc caatgatgca aagataaatg acacttcctt ctcaaaaatc cacttanggc 180

agaatgagaa aaaggaatat ttgtgaatta tctttgatga tgccaaggaa ggtttttgac 240

atatctatgg aagatatgac ccaaacaaaa ttttgagaac tatttgggaa tttggggagt 300

gacggaaaat ataggttggt tcacaaacta atggcaaaaa tgatgattcc tttaatagaa 360

aaaggaatat tccaataaaa aaaatattgg gaatggccca agatgaaaat gac 413

<210> 5569

<211> 401

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-G10  
 <400> 5569  
 ccggtctagt attccccgggt cgacgggtcg atacatcagg ggaggcaaatt tgagggggagg 60  
 catgatgggt cctaattgaga ggcacttttg tatctggaat ggagtcacgg ttcattgactc 120  
 tggtattgca atttttattc aagcagttgt tgaccaggagg agccactgtt tttttatgta 180  
 cggtgggttc aggcgggaat atctatgata gccacagtt atttgtatgt gagaagcatg 240  
 gacagacata gagatgcagg tccgttgata tcaactgaggt ttgtctttta agcaaagtgg 300  
 aggcacgcat gtggcttttg tgctggccga accgtgcttc ttttttctt tagtcccat 360  
 gtagtatttg cacgataggg tcattctgtt tgcttctct c 401

<210> 5570  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-G11  
 <400> 5570

ccggtcttca attccccgggt cgccgggggc ggataccaaa accatcgac tatataataa 60  
 caagcaatac aatagtaaga aaattagaca agtatctatc taaagtaaga attttttttc 120  
 tttcagaaag aagataagaa caagaggctc atcacggtgg tgccggcgac gagatcggcg 180  
 cgggcaatcg acggcggtga agacgggaat gggacgtgac gggccgctaa acctagacaa 240  
 atctcgagga aaatggagct ttgaggtcga gcttcgagag aagaaagctt aactactgtg 300  
 gctcgggcat ttcattgaac acctcatgtg catangaggt gagctagagc agcacaagc 360  
 cctcccctcg ccggccagag aaaaacagag cactggagtt gctctgct 408

<210> 5571  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-G3

<400> 5571

gggccagaat tccccgggtcg acgggggaag cgattctgca ggcggtaggg caagaacccg 60  
gtcaagaatt ggagggcgag gcggaggaga gcgcagatcg agaggggaac ggcgacgaca 120  
ctgggaagga agatagtggg tgtaaagatc tggctctggg agaggaccct gtcctgggtcg 180  
aggatccaga ggaaggtacc tgtacttctc tggcggtcgc atccaagaac ttgttccgtc 240  
cattgttaag cacgcaagaa acttttctgt gctgttattt ggctctatta gctgactgtt 300  
ggtagtggtc aactgtaaga tgcaataata caatagaagt tctatggtgt tcttgcggtan 360  
gaatagttgc agaagaaaca gtatagctgg ttttcgggtg ttgctaattt taaatttaac 420  
aat 423

<210> 5572

<211> 111

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-G5

<400> 5572

gtaccggact agaattcgcc ggtcgacggg aggatttacg agtccggaac ctgcttcaag 60  
tcggccgcaa cgcgctatga ctccgcttca gtagacattt gtaggatccg c 111

<210> 5573

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-G9

<400> 5573

ccgggtcaaga attccccggg cgacggggcg gcagtgatga aataaagaac cacaagtggg 60  
tcaaggcagt gaactggaag aaactagagg ctgcacagat caagccaagc ttctgcccac 120  
atgttgctgg gcagacctgc attgcaaact ttgacgagt ctggacgagt atgcccgctgc 180  
tggtattccc cgtggccagc cctgtcgctg cagatagcaa cttcgtgggg ttcagttacg 240  
tgcgcccgga gccattcctt caaaagccga gtcctctagg ctgaagacta ctttataatt 300  
gtggtatcta agaaatctgg tatcttacct ttgctcaaga cagtaagatg aacctgctgt 360

tgtgcttgtt ttagacttca ctagttgatt gcccgtagt tgccatggaa cacaagaaca 420  
cacgtta 427

<210> 5574  
<211> 192  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-H1  
  
<400> 5574

gggtcgacgg gcttcatagc aaaattacac gagagagaga gatatcactg gtaatgttgc 60  
tctggaagta tctcatgcta tgggatcaac aaaaaaatcc agggcccacg tgtggatcac 120  
aatccaccaa tgactgacca ggggttcttg cgcacccaaa tttgttgtga ccaactgggt 180  
gaactccctc cg 192

<210> 5575  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-H11  
  
<400> 5575

ccggtcaaga attccccggg cgacgggaag cactatgtat ctatggaaat ttcagttttg 60  
gcatcgagca tctctcttcc ctcacacgag tccatgccat gattagctgc aaatgtgctg 120  
tagcttcgga ggtgaatact gtgaaggatg cgatacgaga acaagcaggt aacttgtcta 180  
gcaaaccac gatcgaattt accacaataa atgaacacat gataattcct gatcacaag 240  
caaagacagc agcagtttcc cctaaaattt ggttaaacgg gtgtatcaac ttcagacaaa 300  
ctgcctagca tcgtaagagg tcaggatgga gtcaatttta atcacatgtg gctgaagcac 360  
tcatgcagaa caggacacgc gacttcgtct tctctctag tactccctcc gt 412

<210> 5576  
<211> 468  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-H3

<400> 5576

ccggtccaga attcccgggt cgacgggcta tgctaagagt gtgactcggtt atttttttct 60  
tttttttaag aaaaaaactt agtaattata gaaaattaac taataaccaa cctattgctt 120  
cgtattgtcg agatcctaac taagaaacag tcactatatg aataaatacc tctatcataa 180  
atgagtagat gtgtcatata gttgtagcaa ctgcaatfff ttctctaaaa aagaaaaggg 240  
attctaggtt gtgaagcaaa actaaaggga tgtggataaa gggagggatg atagaaagaa 300  
ggaagaggaa ataaattaga ttttaggatt caacaaggta gggtcatgaa tttcatcata 360  
aaaaggaatg tgataaagca tcaatataat aaaaataata gagaattaaa aattttaact 420  
tgaaacaaga actacaaatt taaagcaata ataaagagcc gcccgggt 468

<210> 5577

<211> 309

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-H5

<400> 5577

ggtaccggac tagaattccc gggtcgacgg ggagcacaag gagaagaagg acaagaagaa 60  
gaagaaggac aagaagcacg gcgagggcca caaggacgac gacggccacg gcagcagcag 120  
cagcgacagc gacagcgact gagccagctc cggccgcgtg cagtgcaggg gagatgaacg 180  
cgtgggttaa tttggagcgt gtggtagcat atgtatgtaa tgcttgacat gtctcatgga 240  
tcttgtaatg taataaccgg ctgcactgca tggtgcttgt aataataacg ttaaggaatt 300  
tccattggt 309

<210> 5578

<211> 368

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-H9

<400> 5578

ccggtccagt agttcccggg tcgacgggga ccacaaggag aagaaggaca agaagaagaa 60  
gaaggacaag aagcacggcg agggccacaa ggacgacgac ggccacggca gcagcagcag 120



cgacagcgac agcgactgag ccagctccgg ccgcgctccg gcagcagcgt gcagtgtagg 180  
cgagatcgat gaacgcttgg gagaagtgtg gcatacatat atgttgcagg gtttggagcg 240  
tgtggtagca tatgtatgta atgcgtgaca tgtctcatgg atcttgtgat gtataataat 300  
tagccggctg cactgcaactg cacgggtgctt gtaataataa cgттаатgaa tcatgttggt 360  
attgatac 368

<210> 5579  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-028-Q1-E1-B7  
<400> 5579

gtaccgggtca cgaattcgcg ggtcgacggt ggctacaaag tgggtggtgg gtgggcctcg 60  
aattttcttcg ccgtccgtat cccaaccatg ctgaccgtaa tccggccagg gctctcctga 120  
caaagagaga gacttttagtg aattcaggat gtcgccaaaa ggcgagtgct gaaagacgtc 180  
cgcggcgggtg aactccatga tcggagccca atcggggttg atcggaaggg gtgcggagga 240  
ttcggagtgcc ggaacggagt ccggcacctt ggaatcacgg gccttgcaaa ggactaggct 300  
ggtatttggc tctatcgccg taaagattgc ggctcctggg gcagcgtcca atcgtccgtc 360  
cttggttggt gtagtcggct ccgggataat ggtcggagcg gacacctgag ccgcgctctg 420  
gg 422

<210> 5580  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-028-Q1-E1-C1  
<400> 5580

accgggtcaag aattccccggg tcgacaagat tctggcaggc gatgcccga ttctcgagcg 60  
ccttcacatc attagtgatg tccaccgtag cgaacatgta gtgggggcta ttgacaaacc 120  
tggcgaaacg ctgcgaatgc cttgtcgtca ggcagtagtg gtagacgagg acgtggtggc 180  
gcacacacat ctgagcgacg acgaccttgg gacgcgaccc ggcacgagcg cgagcgtact 240

caaggtcgaa cccgaccacc ttgtacttct ccgcggcaag caagagctcc atgatgtgga 300  
 tgtagtgctc caccacagaat gggtcggttg tgtacaccat caagaggtac atgaaccttc 360  
 tgggtgggtgt ccaccacggc acgcatgggtg aactgctgct cgtcgtca 408

<210> 5581  
 <211> 331  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-C11  
 <400> 5581

gtaccgatca agaattcccg ggccgacggg gcttggagta gaatttgtaa tgctcaaaat 60  
 agatctacta ggaagctttc tacttccggt cttctccgca atttttatgt aggcataact 120  
 ccttggaata gatgtgttct tgatactggt gccggaggtg atttcttgag tagccatacg 180  
 tttgacgctt ataatgctat gttagatttg tttggccac cacctctttt ggtaaatgga 240  
 actgttttaa ctttagaaca cgttatgcaa cggcttgatg ttatttaaaa taaaatggcc 300  
 agtggttgatt tgattgaaaa tttggataaa a 331

<210> 5582  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-C12  
 <400> 5582

gtaccggact agaattcccg ggccgacggg tatcccacta ggagcatgcg cgtagtactt 60  
 tgtttcgatg actaatagat ttttgcaata agtatgtgag ttatttatga ctaatgttga 120  
 gtccatggat tatatgcact ctcacccttg catcattgct agcctcttcg gtaccatgca 180  
 ttgccctttc tcacottgag agttgtgcaa acttcgccga tgcattcaaa cctgtgata 240  
 cgatacgctc tatcacacat aagcctcctt atatottcct caaaacagcc accataccta 300  
 cctattatgg catttccata gccattccga gatataattgc catgcaactt ccatcatcat 360  
 catatacatg acttgagcat ttattgtcat attgctttgc atgatcgtaa gatagctagc 420  
 atgataattt catggcttgt caattttttg 450

<210> 5583  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-D11  
  
 <400> 5583

gtaccggacc agaattcccg ggccgacggg tggcgagtg gcgccaacac ttcccgcggg 60  
 acatcatcaa cgagcgcggg ttctatgcgc aaaggagggc ggagagggat aagatgaggg 120  
 cagagcgaac cgcctatcgc gaggacaagc gtaggcgaaa agtggacgct caattcaaca 180  
 tgaggctagg agcagcgtcg ccttgggaat tggacgacga tcggtatctt ctgcctaca 240  
 gtcatacgtc agaggaggac atcacctagg aggagtcaga caacaaggag tagttgaatt 300  
 atcttttttt aaccaaccat gctgagaact atcctctact ctatctactt cttgagctca 360  
 gcactgtaaa cacttttttt aaagcgccgc gcattgtgat tctgttggag atgctctaac 420  
 atggcagatg agtgctttta tgttgccac aag 453

<210> 5584  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-D5  
  
 <400> 5584

gtaccggtca tgaattcccg ggccgacggg gtccacaatc atccttgctg tacacacctt 60  
 ttgagagata cacacatgat tcagaaattg ttagaacact ctatgtgctt cacttatatc 120  
 tattgagtta tatagttttt gatctagtgc ttcacttata tatttttaggg cacggtgggtg 180  
 gatttgtttt atagaaacta ttcttctctc atgcttcaact tagattcttt tgagagtcct 240  
 aaaaaacagc gtggtaattt gctttaatta tgtaggcat tcaagattaa taaaaaatt 300  
 cttatgagtg tgttgaatac tatgagaagt tttatacttg ataattgttt tgagatatgg 360  
 agatggtgat attagagtca tgctagtga gtagttgtga atttgagaaa tacttgtggt 420  
 aaagtttg 428

<210> 5585  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-D6  
  
 <400> 5585

gtaccggtca tgaattcccg ggtcgacggg ctatttaaaa ctgctcgacg ggagcttaat 60  
 cttccttctg ctaatgaatt gattagttct cagtcaaaca atgaggcaaa tggaaatctg 120  
 gaaaacacac aggaagtgca ggtgaaccca acgagcttat ctcaatacag ggacatccag 180  
 agaaagattg ttgagtttat cagaaagaga taccatattc tggaaaaatg cttggacatt 240  
 gaatatgccg tgataaaaaac aaatactcct gttcctgatg atcttactga acaaaatgtt 300  
 cctatgggac atagcccagc tgttccagat atcagtgaag tgttgagaga acttccccct 360  
 cttgtaccaa tttctgccaa agaagtggct tctgatggct caactgacca ggcacacctt 420  
 tcccatcttt 430

<210> 5586  
 <211> 176  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-E11  
  
 <400> 5586

atcgacgggg atccaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaccgg ccgccctaaa ggttcaaacc ttacttacct 120  
 ttgcatgcaa cttcatagcc ctccaaaagt gtcaccaa at ttcatttcac ggcctt 176

<210> 5587  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-E2  
  
 <400> 5587

taccggtcct atattcccg gtcacgggg tcaggaaaaa gtggggcggt ggtgtcatgg 60  
 gctccaagtc gcaggccaag accaaggcca gggaaaggct catcgccaag gaggctgcgc 120

agaggatgaa ctaagcctag ccttatatgt cagagcatat gccatgtagt ttccctttca 180  
 gtgtgtcctg attttgacga ggaactcgaa cccttttagc agcactgtgg aatcgtattg 240  
 tgggttttctg attctctgtt ccgttcgcca gacttatgca aagatcagat gaggtttacc 300  
 catgtttgga ttctatatag ttttatgccc tttgtcg 337

<210> 5588  
 <211> 225  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-E6  
 <400> 5588

tgggactccc agtagtgagt cgtattagat atttattaca ttagttagtg actagattgg 60  
 gcaggttagt tagttggtgc cattcaatgc atgtgcaagc tcccgatc attatcatgg 120  
 tcatcatcag ggtgtgatga tagcttagac ttgatcaatg gcacatatta gtacttaa 180  
 gacgtgatcc tggttacggt tatccagtaa tctgatgcct cgggt 225

<210> 5589  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-E8  
 <400> 5589

aattcgcggg tcgacgggtc atcaaaagaa tcctgcaaca tgagacgttg cagccatgta 60  
 ggtcagtata ttgaatgtac tggcaatttc acgctgtaga gcaatgctaa ataatggcta 120  
 tcactacatg catatttggt tgggtggaggc tctaagttta atttttgcat aaagccaatt 180  
 ttttctaca acaaaggaat atattttatt taactataaa gtttgttgaa aacattgaga 240  
 aggttcctcc aactcaatcc caaattaaca tcaataacct aacaaattat ttaaataacg 300  
 tgatgagatc aacatgataa ttcaagaacc agatacccaa gatgtccaca accagggata 360  
 cggctagtca tgactagttt gtacactctg ctg 393

<210> 5590  
 <211> 371

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-E9  
  
 <400> 5590  
  
 gtaccggacc agaattcgcg ggccgacatg ggcgacatgc tgatgatgga caggttccgt 60  
 caatggcagg ccaggcacia ccggtcgtac ctgagcgagg acgagaggct gcgtcgcttc 120  
 cgggtgtacc gcgacaacgt ggagtacatc gacgccacca agccggcgcg gcgacctcac 180  
 ctacgagctc ggcgagaatg agttcgccga cctcaccatc gaggagtcc tagccaggta 240  
 cgctcgctcc tacgatgggg tcggtgatga tactggcatc acgttgcttg tgggcggtgg 300  
 cgacgccgag ctgtggctgt cctgcggcga caatgatagc tccttgagg ctccgcctcc 360  
 cagctgggac t 371

<210> 5591  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-F11

<400> 5591  
  
 gtaccggact ggaattcccg ggccgacggg agcacacatc taatattacc acctttatat 60  
 ctcaaaacaa ctatcaagta tcaaacttct cttactattc aatgcacttt ataaactacc 120  
 atgccgttct aagggaactct caaaatgata taagtgaagc atgagagatc aataatttca 180  
 ataaaatata accaccaccg tgctctaaaa gatataagtg aagcactaga gcaaaattgt 240  
 ttagctcaaa agatataagt gaagcacata gattattctc ataaattccg attaattgtg 300  
 gtctctctca aaagggtgtg acagcaagga tgattgtggt gaaacanaac gcanagactc 360  
 aaatcataca agacgtcca agcanaacac atatcatgtg gtgaataaaa atatagctcc 420  
 aagtaaagtt aacgaatgga cgaagacaaa 450

<210> 5592  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-F5

<400> 5592

gtaccggact agaattcccg ggtcgacggg tgtgattatt tgcttatggg gggttccggg 60  
agggattgaa acctgtaccc caagttgtga gtcgttgcat atgggatgaa gagggcaatt 120  
tatcttaagg tcatagttag gtttgcctta atgaacttgt tcgtatttgt ggatatttgc 180  
taatagttct aatcataagt gcataaaaat ccaagaaaga aatagtatgt tagcagaggc 240  
ctctcccaca tataaaaacta caatgacgat tatcgttctg ttatcaattg cctcccaaaa 300  
taagagtctc taccttagta caactttgta ctaaagttag tccaaagtca agacacttat 360  
ttcgggatgg agggagtatt aggataggaa ataccataat aattttcttg aaaca 415

<210> 5593

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-F6

<400> 5593

taccggtcag gaattcccg gtcgacgggt cgccatataa ccttggatgg ggatgaattg 60  
tgtgctcggg ggaggggggtg tgtgtgtgat gtgtgttgcc tctgtgtgtg tgtgtgtcag 120  
atattgagag aaaacaaacc taaggagaga aatgtgtgtg tatgtgacgg aaagctactt 180  
gctaaacagg gtattcacga agagattgtg cgtgcgagat agagagcgat gtgcgggcct 240  
tgagggtggg agggggccgg tgagggtgtc aaaatgtgcg ccttgatgca tgtgttacat 300  
gcgatcgtgc gagggacgga cgaatcgaga gagatggttg ttgtgttacg gatgttcctc 360  
tctctctcac atacacacac acacaagtaa aatagaagac cgttctctca tgtatacac 419

<210> 5594

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-F8

<400> 5594

aattcccggtg tcgacgggta ttataataac agatctcacg aagggttttg ttaagttttg 60

tgtgggtgaa gtgttcaaag atcgaggagg tctcgatatg aggagaagga ggagaggtag 120  
gagttcaagc ttgggggatgc ccaagtaa atgcgaggag actcaagtgt ctaatcttgg 180  
ggtaccccg g aaggcatccc atctttcttc aacaagtatc gatatgtttc agttttcggt 240  
tcgttcatgt gatatgctta aatcttggag tgtcttttgt gtttagtttt tgctttttat 300  
tttatgcaca atgctgggtat gatatagtcc atgggtgatt tatggaattc tctttgcact 360  
tcaattatat cttttgagta tggctttata gaatgcttca tgtgcttcac ttatatcatt 420  
cgaagttggg atgcctgggt cccc 444

<210> 5595

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-028-Q1-E1-F9

<400> 5595

ggtaccgatc tagaattcgc gggccgacgg gttccaccat aagcatgata tcaacgagtc 60  
tctcaaagcc atgagaattt ccattgacaa gtgcaaagaa agaactgcta ggatgcgtgc 120  
taagaaagat gcctttatga aagcgtgttc ttctagtctc tatgaaaata atgatgaaga 180  
tctaaaagtt attgatgtgt cccctattaa atctttgttt tgcaatatga atcttgataa 240  
tgatcggact gaatatgac catctttacc tagaaggcgt tctaagaatt cagaatttat 300  
tggtcctgat gctaaatttg ataaaagtgg gattgaagaa attaaaacc tagatgttgc 360  
taaaccact atattggatt tcaaggaatt taattatgaa aattgctctt tgattgattg 420  
tatttcnttg ttgcaat 437

<210> 5596

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-G5

<400> 5596

gtaccggtac agaattcggg ggccgacggg ttgcatctt gttcccagct tgcaccgtca 60  
ttgagccatt ctaccatggg tctcttccat ttccgatgat aagcaaattc atccattacg 120



ttgtcttcaa caaggtaatc cacatcatcc aagtcgagt atgccattct accgaccccc 180  
 tccaaacgat cgctcgagga ttgtcttagg ctggtttaaa gagtttcaat gatctttgaa 240  
 tcaaaagtaa ttctttttgc cacttaaggg gatatttcta cgagtcacct tccctaaggt 300  
 gcctcgttgt gggttcatgg caactcaact cctcgctacg ttgacaatcg attaccacct 360  
 tcttaagcgt gaaattgttg tctacctagt gaaccctcgt tatctgttcc actccatccc 420  
 cccaaggggg tgtgcttcgt ctctcagctc aagagatg 458

<210> 5597  
 <211> 411  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-028-Q1-E1-G7  
 <400> 5597

gtaccggtca tgaattcgcg ggccgacgag gaggaggagc ctgaggagga gctaggaact 60  
 gaatatctgg tgcagccgct tggccgtgct gaagacgaag agcattccag tgactttgag 120  
 ccagaagaaa atggtgatgg tgctgaggac gaggagattg aggatgatga tgctgaggat 180  
 ggtgaggatt ctgtcaaggc gcaatcctct tcgaagagga agaggtctgg cgcgaggat 240  
 gaagatgatg atgacggtga tgatgatggt gatgatgatg agaagcctcc atcaaagcga 300  
 tagtcaattt gttcttgctg atctgggtatc tttctgctt gggccaagaa ggaaaataat 360  
 cctcacggag aggggtgttg gtaaagtctg tagctttagg acatctgtgg t 411

<210> 5598  
 <211> 424  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-H5  
 <400> 5598

gtaccggtac agaattcgcg ggtcgacggg ccggcatggt ggggcatcgt tttccacgga 60  
 ggctggggag actatccgcg caaccctggt tcttggtgat ggcacgggc ctgagatcgc 120  
 cgagtcggtc aagcaggtat tcaatgttgc aggtgtaccg atagaatggg aagaacatta 180

tgttggtacg gaagttgatc ccagaacaga gagctttttg acatgggaga gcctggagtc 240  
 ggtgcgtaga aacaaagttg gcttgaaagg tcctatggct acacctattg gaaaaggcca 300  
 ccgttctttg aatcttacat taaggaaaga acttggactc tacgccaatg tcagaccttg 360  
 caacagcctc ncaggctaca agactagata tgatgatgtg aaccttgtga caatccgtga 420  
 aaat 424

<210> 5599  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H7

<400> 5599

gtaccggact agaattcccg ggccgacggg caggaacaga tgatcacaca atatcttttg 60  
 ataaatcctt tttaacctagc ttctgatttc tattaccaga aacagattgt ctgttcttac 120  
 aggaaacatc taaaaacagc cgttattcgt tattgtgctc ttccatgttg cgccgctgac 180  
 aagaggatgg aggggttttag tcgtcgtcgc ggagaagaag ggtaaccacc aagcaggaga 240  
 gagggaggaa agctatgcc gttcgctgga agccaggcaa cccggcgcca tcgtcgagga 300  
 gagcgaggag gggctagatt acgccgccac agaggtgagc tacgaggggc tgcggcgctc 360  
 ctgcatagga ggggggagag aagccgccac cgcaccacgt gattctgc 408

<210> 5600  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A1

<400> 5600

taccggtcca gaattcccg gtcgacgggc gggcggtgca gctgcgcac gcgatggcg 60  
 cgcaggtgac cgtgcagtat gcgcacaacg tgatcatcca caacatccac gtcaacgacc 120  
 tcatcgtggg caagggcggc aggatccggg actcgccgca gcacgccggg ttccgcaccc 180  
 agtccgacgg cgacggcgtg agcgtcttcg gctccaccga cgtgtggctc gaccacctct 240  
 ccctcgccac ctgccaggac ggctcatcg acgtcatoga ccagtccacc ggcgtcacca 300

tctccaactg ccacctcaca aaccacaacg acgtcatgct ctteggctcc agcgacagca 360  
 accccaaaga cgaga 375

<210> 5601  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A4

<400> 5601

cgggtcaagaa ttcccagagtc gacgggtaga aggaagaaga aacacaaagg aggcagcata 60  
 aagctcaaac tacactgacc atgttgccac ttggccaata tgcaaattca aatctacaac 120  
 caacaggacg catattcagt ttccaactac aactaagata accaatccac cggaactgaa 180  
 taacagtgtt ctctaacttc cactaaatgg aacttagtaa aaggtaaagt gtccatactc 240  
 gattattcac caagagaatc aagtactcag atttcgcaat ctaggtgaat gagtgggttg 300  
 aaggatgaac aaatgaatag gcttgaaaat gacaatatag gacttaagaa tgccctgttta 360  
 cataatactc ctccgttcac aaatagaaga tgtttttgat atttcaatta tggactacat 420  
 actacggaat gaaatgagtg aacaaacaca ctaaaatgtg tct 463

<210> 5602  
 <211> 67  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A7

<400> 5602

ctactcccaa tagtgagtcg tattagttgc tttagttctc atccatgac tatttttcta 60  
 cttcatc 67

<210> 5603  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A9

<400> 5603

attccccgggt cgacgggcaa aacaacttca accgaatgag tacaactctg ggacatttac 60  
tctgtccaac ttgggcatgt ttgggtgtaga tagatttgat gcaattcttc cacctggcca 120  
gggagctata atggctgttg gagcctcaaa acctacagtg gcggctgata aagatggttt 180  
ctttagtgtt aagagcaaaa tgatgggtcaa tgtcacggct gatcacagga ttgtttatgg 240  
tgctgatttg gctgcattcc tgcaaacttt tgcgaaaatt gttgaggatc ctgagagcct 300  
aactttgtag gatgttcttg gaagtggctc atgagttggt caaccgtcag ttcatttcca 360  
gttggaagtc tatcgctgag tttgtttttc gttttcctat ctgtatcct 409

<210> 5604  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-B10  
<400> 5604

taccggtcta caattcacgg gtcgacgggg aatactagtg ttaaagtttg tgattcccg 60  
agcatgcacg tatggtgaac cgttatgtga tgaagtcgga gcatgattta tttattgatt 120  
gtcttcttta tgagtggcgg tcggggacga gtgatggctt tttcctacca atctattccc 180  
ctaggagcat gcgtgttata ctttgctttg ataacttcta gatttttgca ataagtatat 240  
gagttcttta tgactaatgt tgagtccatg gattatatgc acttttcccc atccttccac 300  
cattgctagc cactctaata ccgcgcactt tttgccggtc tcatacacct accatatacc 360  
ttcctcaaaa cagccaccat acctacctat catggcattc ccatagccat tccgagatat 420  
at 422

<210> 5605  
<211> 472  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-B2  
<400> 5605

cgccggcatt acggtcaaga attccccgagt cgacggggacg cggggtggac tgatcatcta 60  
ccatggagtc atgttgaagg tggagcttga ttgaggggct acggtgtaag gatccagaga 120

gtcgaagcct attcagctgg gaaaaagcga gtgacatgca gtttggactg gagcctagtg 180  
gtttgatgga agcgtgaaac tcgtcatcgg tcggtgatga tcggtggtac tctgcagtgg 240  
gggttgagtg gtgtggttta ggcacccttg agactcgacc gggacagcgg aggctcgacg 300  
cgataatagc ggtgagggcat gcggttagcac ggggcatgga gacggggccag ggctctggtg 360  
gtcatacatg tggtgaggca actgcgaatt tgactcgggg tgactacaag caaatggtga 420  
aaatcctttc aggtttcaga caggcgggtca agaaatgagc ggtgatattg ag 472

<210> 5606  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-B3

<400> 5606  
attcccgagt cgactacatg acacttcacc attatattggg actagaggaa ggcattggga 60  
agtaataagt atttgatggg ttgctagagt gacagaagct tataccctag tttatgcatt 120  
gcttcgtacg gggctgattt ggatccacat gtttcaagct atggtttaggt ttaccttgat 180  
acttttgttg tagttgtgga tgcttgcaat agtgatgagg acatcaatac aattgttaca 240  
cccacagccc ctgctgctat acatactgga ccaattacta gagctcgtgc acgccaacta 300  
aattaccagg tactttcggt tcttggtaat gattctaattg ttcattgagaa tatgatgctg 360  
cctaaattgg atacatttgt tttgc 385

<210> 5607  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-029-Q1-E1-B4

<400> 5607  
attcccgagt cgacggggaa ccggacgttc gatgccgaga cgccgcggcg gcgggagtcg 60  
gcacgcagca acgaggcggg cgaggaggcg cggatcaagc agctggagct gcggcagggtg 120  
aacaagggtga aggcgctcgt cggcgcttc gagaccgtca tggacgacaa ccaaagcccc 180  
accgcgcccc gcaagccgcg gctcaacctc ggcgcctgaa ctacgagtac attcgatgag 240

catgaagctc gatcgcgtgc gcctcctcct ttatccccgc tactctttaa tcacccatca 300  
 acccaatttg tcgtcgtcgc acacttatct ataattacgg tatcgcttat attctgcaag 360  
 gaggaagatg atggaagggt tatcatcatg atggtattat aataatgatc atggagcana 420  
 aaaaaaaaaa aaaaaaaaaa aaaaaaagcg gccgcc 456

<210> 5608  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-B6  
 <400> 5608

cgggtcaagaa ttcccgggtc gacgggtagc tagatggctt cttctctctt tttggatctc 60  
 aatacaatgt tctccccctc tcttggtgag atctattcga tgtaaactct ttttgtggtg 120  
 tgtttgtcga gatccgatga attgtgggtt tatgatcaag tttatctatg agaaatattt 180  
 gaatctctc tgaattcttt tatgtatgat tgagttatct ttgcaagtct cttcgaatta 240  
 tcagtttgggt ttggcctact agattgatct ttcttgccat gtgagaagtg cttagctttg 300  
 ggttcaatct tgcggtgtcc ttaccagtg acagaaaggg ttgcaaggca catattgtat 360  
 tgttgccatc gaggataaaa agatgggggt tatatcatat tgcattgggt 409

<210> 5609  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-B7  
 <400> 5609

accggtccag cattccccggg tcgacctccg cggacgaggt gcagcgcatt atggcggaga 60  
 tcgacaccga tgggtgacggc ttcatcgact tcagcgagtt catctccttc tgcaacgcca 120  
 acccgggggt catgaaggac gtcgccaagg tcttctgaat cagttcattt cacctcagcc 180  
 gtccgatcca ggagccgatc catctacgta cggcttcgta tatcaatttc atgcaactac 240  
 ctactccggt cccgatccag cctcagcttc acctgaggcc ggcctaatt ttgtttgatc 300  
 aatttttttg ctactagtag taactagtga tgatcactgt tgcaccattt atttatttta 360

tatcgtcaca actttccagt gtttcttttc tttctctacc tttttggcca ttgttcgggt 420  
 caagctcgat cgaacgatcc atgctgctaa ttgtttgtgt a 461

<210> 5610  
 <211> 254  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C10

<400> 5610

ggtctagaat taccgggtcg acggcgtatg tcatatttag gtaggaattt tagagttcca 60  
 gaactttgcg ttacttacag attgctacag acttttctgt ttttgacata ttctgtattt 120  
 cttgtgtggt ttgcttattt tgaggcatct atggatatta aattatttta taaacaatat 180  
 tgaagttgga atacattagg ttaatcacca attaattaaa taaggattta ataacgttac 240  
 ctaagttgga gggt 254

<210> 5611  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C12

<400> 5611

ggtcaagaat tcacgggtcg acgggcatta ctattttaat gtggaaacaa tttttagtgt 60  
 tcaaattctt tatgatactc ccaccattcc gaatgaaaag aattttgctt atgtggagag 120  
 tagtaaaaaat tctatgcttg tagatcatga aaagaatgct ttaggtggtg tttatattgt 180  
 tgaattcatt catgatgcta ctgaaaatta ttatgaggga gtaatatatg cttgtaggaa 240  
 ttgcaataat gtcaagtttc ctctctatgt gttgaaaatc ttgaagctat gcttgtttta 300  
 cttccaatg ctagttgatt atcgttccca taagttgttt gctcacaaaa tccctatgca 360  
 tacgaagtgg gttagactta aaagtgctag tcatatgctt tatgatgctc ccgttaa 417

<210> 5612  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-029-Q1-E1-C2

<400> 5612

attccccgagt cgacgggagc aaaccattca ccatggtact gcttgatgag atagagaaag 60  
ctcaccctga tatttttcaat atccttctcc aaatttttga agatgggcat ctggcagact 120  
cacagggtcg cagagtttcg ttcaagaaca cattgattgt catgacatca aatgttggtt 180  
ctacgtcaat ttcgaatgga cgacggagca tgggtttctc aacagaggat actgagtcga 240  
gcagatatgt cgcggtgaaa tccctcgtga tggaagagct gaaaggattc ttccgtccag 300  
aattgctcaa caggattgat gagacggttg tcttccgtcc tctggaacag actcagatgc 360  
tggcgattct cgatatctc ctagaggaac ttaagggcaa gctcttgcc gtcgggatcg 420  
gcctanaggt ctccgatgcc atgaaggagc t 451

<210> 5613

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C3

<400> 5613

accggtcaag aattccccgag tcgacgggag ctagattttg ttgcatttaa tgaaaacctt 60  
agaaaaaagg ttccctaccaa tattctagtt gatagaattt ctgaacttaa tgacgatttt 120  
gctattcgaa ataatgagct aggatattct ctggaatata ggctcaccaa gttctgtcaa 180  
aagaatgcct ataatgatga attggttatg caatatgaag ggccgaagga ggaacctata 240  
cctcctaagg ttgatcttgg ggatttttgt cccattaaat ttagcccttt tgattacttt 300  
tgcttgccac aaagaaagct tgctgccgaa cgtagagagt atgaaatgag ttttaatgat 360  
ctatcttatt attatggcag tacctag 387

<210> 5614

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C4



<400> 5614  
 attcccgagt cgacggggca cgagacagta gtatcatgtt ctggatttct ttcagaaaga 60  
 tcacaactgg gagtggtggg tgggtatatt gatggactcc tgtagtcat gttacaactg 120  
 tgagtgggtg gtggtctaag agtggcagat agttttcaga caatgtgcgc catcttcgga 180  
 tccttttcct ggcacagaac cgctaagtac aactaccac acaatcatgg ttgatgagac 240  
 aactcatatc tttgaccgtc tgcgtgtatt gttgatgaat catggttggt tgatgagaca 300  
 atcacatcat tgcccgctg cgtgctttgg tgatgatttt tcacttagga atatggcaaa 360  
 atgttttctt gaatccatcc ata 383

<210> 5615  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-C6

<400> 5615  
 taccggtcta gcattcccgg gtcgacaggg cctccaattc gtaaaaagag gagaggtaaa 60  
 tcacacagag aaccatcagc aatggcgaag atttctagta gcaccgttgt tctcctggtg 120  
 tttctcgtct cgctcgtggg ggcattgccg gtgctgtccc gtggaggcct ggaggatgga 180  
 ggaggcgggc caaacggtgg tatcgggtgt aatggtgggc ttcaaaagtc tgtcgggtgct 240  
 aatattggtg ttggtgcgaa tggaggcgtt ggtgctggtg ctggtgctgg cattggagca 300  
 aatgtaggtg ttggagcaaa tgtaggtgcc aatgctggtc ttggtgccgg tgcaaagtga 360  
 aatggtggtg ctggtcttgg tgcggtgca cataaatcta ttggtgcca atgttggtgt 420  
 tggtgcaa at ggaggcgctg gtgctggtgc tgggtgctgg 459

<210> 5616  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-029-Q1-E1-C8

<400> 5616  
 acggtccagc attcccggtt cgacggggta ccgtacatac caacaacagt cctgggggag 60

ttttgtttgc aagtattttg atttgatttt tcttaaagca tgggactggg catcccggtg 120  
 accaaccatg ttctcgtgag agaggagcgg agtccactcc tcttgagaat aaccaccta 180  
 gcatggaaga tacaacaac cctagttgat acatgagcta ttcgagcata caaaacggaa 240  
 tttcatttga aggtttggag tttggcacat acaaatttac ttggaatggc aggtaaatac 300  
 cgcatatagg aaggatatggg ggactcatat ggaataactt tggggtttaa ggaattggat 360  
 gcacaagtag tattcccgtc tagtataagt gaaggctanc aaaagaatgg gaaacaacca 420  
 actagagagc gacaacagtc atgaacatgc attaa 455

<210> 5617  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-D10  
 <400> 5617

cggctctagaa ttcacggggc gacggggacc atgatgcttg acaaggcgcc aggcctagat 60  
 ggctttactg ggcgcttcta catgtcctgc tggcagatca taaaaatgga cttcatgagg 120  
 gcgctcgacc aattccaccg aggagacatg cgtggattag cggtgatcaa taaggcacta 180  
 gtatcattac tacctgatac gtctccaacg tatctataat ttttgattgt tccatgctat 240  
 tatattaccc tttttggaag tttatggggtt ttactttaca cattattatc atttttggga 300  
 ctaacctact aaccgaaggc ccatcccata tttgtagcga ccagacctca aacagtccga 360  
 tctctgtgca tcagtgtcat ccttgggtca gtaatgtga cacgcacag 409

<210> 5618  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-D11  
 <400> 5618

cggctctaaaa ttcacgggtc gacggggcgtg ttcaccacaca atacgacgtt ctgctgcgtc 60  
 aagcagccgc ctggcagtcga gaagggtgcc tactacgcca tccatcacat gcggggcgatt 120  
 gtacggggacc agcatcaact tctgctaccg agtaaaactca aagattgggc cgcgagcatg 180

ttggcaatcc aggacgcgga catcagacaa gaattctttc gcatccagtc ggagtttgca 240  
gaaatcatct atcaagatgt ccttcgtacc tcggggcagt tctacctcag aaatcaaccg 300  
tccaacagtg acatcgacac aatgctacaa atgcaggctg acaatgaccg ttatttcatg 360  
actcccatga tagacggcga ctccatccac gtcgcggtcc 400

<210> 5619  
<211> 453  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-D2

<400> 5619

attcccagat cgacggggcgc ctgtacagca ggtgctacgc acgacagatc ttccagagtc 60  
ttcgcgtctg gatggacgag cgcattggagg tggagccgtt gggcgccgta gtggcgtcga 120  
cggatggccg gactggcaag gatgatgcgg atctctctcc tgaagacggg tcagtggttt 180  
gatgatgatg gcagcttgta aaacgtgtgc gtgtggtgta cgctttaggt ctgctgcacc 240  
ggctgtttgt tccgatacgt tatgtggatg aatcggcaat gacaccggtt ttagatatga 300  
ggagtgaag cactccacat tatcggttt gtaggtgtga atggtggctt cgggtgacct 360  
gacgtatgtt ttggtcagtc ctttgctgaa taagttaata aagatggccg tatgcatcaa 420  
ttgatgcaga ggccggagggt ctcaacctcc ttt 453

<210> 5620  
<211> 454  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-029-Q1-E1-D3

<400> 5620

attcccagat cgacggggac ttacagaatg aggacggttc atggttcgga tcatggggta 60  
tttgcttcac atacggcacg tggtttgcta tagagggcct atcggcagtt ggacagtgtt 120  
acaataatag cacctacatc cggaagggtt gccagtttct attatcaaag cagctaagga 180  
atggtggatg gggtgagagt catctttcat ccacaaccaa ggcatacacg aacctagacg 240

gggagaaatc acatgtagtc aacaccgcat gggcaatggt ggcactaatg aaagctggac 300  
 aggccgaacg agatccgtct cctttgcacg aagctgcaag acttatcatg agcatgcaac 360  
 ttggcaatgg tgacttccca cangangaaa tgaatggaat ttccttgana aagggtccct 420  
 tgtgttatat ggcttatcgc aacatattcc ccat 454

<210> 5621  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-D5  
 <400> 5621

accggtctag aattcccggg tcgacgggaa actaatatga tgtagagtag acccgggggc 60  
 cataggtttc actagtggct actctcaaga tagcatatat tatgggtgggt gaacaaatta 120  
 atgccgagca attgatagaa aatcgcatag ttatgagaat atctaggcat gatcataaac 180  
 atacgcatca cgtccgtatc aagtagaccg aatgattct gcatctacta ctattactcc 240  
 acacatcgac cgctatccag catgcatcta gagtattaag ttcataagaa cagagtaact 300  
 cattaggcaa gatgacatga tgtagaggga taaactcaag caatatgata taaaccccat 360  
 ctttttatcc ttgatgtcaa taatacaata tgtgccttgc tggccctaaa gtcaattgga 420  
 aaaggacacc gcaggattga acccaaagct a 451

<210> 5622  
 <211> 264  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-D7  
 <400> 5622

ttcccgggtc gacggggaag cgcaggaaaa agtgagcgag tgggagacat caggaagcga 60  
 cggagtctca gctgtgtgta catgtttagt ggtaggagct cctgggtctt ttgattccag 120  
 tgttgtatga aatggcgcgga tggatgggtt ctaggagttt ttcttttgga cgggggatgt 180  
 acgaaactga cttgcgcgcg tctctccgct cgtgggactc ggggaaacag tgttcccctt 240  
 cgaactgttg tctgtatgt ttg 264

<210> 5623  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-E10

<400> 5623

```

ggctctagaat taccgggccg acttccatca aaacgatatc catcatctca tcgaaagacg   60
ggacaccttt gcctctatca agtgggtatca gatttccagg ttgctcgggtg agattttaca  120
gtttttcgta gtttagatcg agtctgttct tcatacctac agtcacgaa aaagccacaa  180
aaaaattagg gttagtccag tatatccgaa ccaatctgag cctttgcata atcttttagg  240
gtttttgctt tgttgaattt gcggttgcac cgtcatgtca agttgctggt cttagagtct  300
agtcttttag agtttcgagt tctggtcata agttgtcacg ccgccgccgc accatcatca  360
tcgccttgcc atctaccact attgcttatt cgccaccgct ctgaat                    406
  
```

<210> 5624  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-029-Q1-E1-E3

<400> 5624

```

cgccggcatg tacggtcaag aattcccagag tcgacgggta catcccaga gtccaagtcc   60
atttgatgag gctgggtgctg ctgcctacgt gaccagagg ggtagtaata ctgaccacac  120
acctgtacat cggcctcgtg tcagtgttag cgtcagcggc gtcgcccctg acgcacacta  180
tagagacggg gcggcggcct acgcgggcct cgccggtgcc cacgatcaag aggaagacgc  240
tgccgtcctc ctccgagact agcaggaggc ggtgatcctc cagcgactcc gacatggtga  300
acgggtagca catctcgtac ttgatgttct ccgccaaggg ccagcaatgg acgaagggtc  360
ccttgagggc atcgaccagg ccgtccatga aatgggagtg gctgttaggg aacatgcgca  420
agttgantat atgagcaagt tactatgaga ttaaatccga ataagcacia aataaa      476
  
```

<210> 5625  
 <211> 453

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-E4  
 <400> 5625

attcccgagt cgacggggac ccaaagggcat ccaaaggtgg aggtgagagg cagttcaatg 60  
 gcctggttga tgtctaccgc aagactctca agtcagatgg tattgctggg ctttaccgtg 120  
 gattcaacat ctctgtgtt ggaatcattg tctaccgtgg tctgtacttt ggactgtatg 180  
 actctctgaa gccagttctc ctactggca ctctccagga caacttcttt gccagctttg 240  
 ctcttggttg gttgatcacc aacgggtgcag gtcttgcac ttacccatt gacaccgtcc 300  
 gcagaaggat gatgatgacc tctggagagg ctgtcaagta caagagctcc ttggatgctt 360  
 tccagcagat cctggcgaaa gaaggtggca agtccccctt caagggttct ggtgccaaca 420  
 tcctccgagc cattgctggt gctggtgtgc tcc 453

<210> 5626  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-E5  
 <400> 5626

acgggtctagc attcccggtt cgacgggggc tcaacggtcg ctacagacct cattttgcc 60  
 aacgtgtgtg ccaggagggc atatcccgga cggtttctgg gtcgtgtggg aaggaccccc 120  
 cctatcgccc aactcactt ggcgacgggt ccaaatgtcg tcgcggaaag gggtaaagaa 180  
 ttgtttgttt aggatcgacg gcacaccagt atgcgcacgt agttcaaatt tgaattatgc 240  
 acataaatgc attgagaact cagttaatgc ataaaaatgt ccaaacgaac cccgaaaaat 300  
 cataaaaatt cacacaacgc tccggttgtt ctatgttgac acgagaaaaa aaaaatgaaa 360  
 gcaataagag gcaatggata tcgtttcctc cccaaa 396

<210> 5627  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-E7

<400> 5627

accggtcaag aattcccggg tcgacgggta tcagcagctc cggcaagttc ttcagggcca 60  
caagaggccg atggtgatgg caacgtgatc agccaaccag cagcttgctg gatcctcttc 120  
tctctggatg cctaaagtca gtatgtcaat gtaatgtaaa catccctttc ccttcccct 180  
ttcttcatgt agcttcggtc tactccttag tagtcttggg aaagcttggt ctttgtagtt 240  
gcttcagcta ctggtactgt ctattgtgtg tgatgtaata tattatggac cattatggca 300  
ttccttttca aaatcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaga aaaaaaaaaa 360  
aaaaaaaaaa aaaaaaaagc ggccgct 387

<210> 5628

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-E8

<400> 5628

accggtctag cattcccggg tcgacgggga ttatgacata catctgcacc ggcgctactg 60  
tcttgactgc ctaccatctt ggtctaaccg gcctcgggtg ctcttggttg cgggttgctg 120  
ccgcttcggc atggcgcttc gaattccatc cctataaaat accatataca caaggtaggt 180  
gaagtgtcta aaatgagatg cctgcagttg ggattttggt tattcgaaa tgcgacgcat 240  
ggagctgtcc aagatactcg gacgtaatgg ccattatggc atcagcagac ctcaattgaa 300  
agaactgact gattatcatc cccatgaata tgcaggatc atcgtcgagt ccgaggacca 360  
tggtccagtc aaggatcatc ggttggtgat atgggctggt 400

<210> 5629

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-F1

<400> 5629

attcccagat cgacggggca tcaggatatt attgattgtc ttccttatga gtggcggtcg 60  
gggacgagt atggtctttc ctaccaatct atcccctag gagcatgcac gtagtacttt 120

gtttctatga ctaatagatt tatgcaataa gtatgtgagt tctttatgac tattgttgag 180  
tccatggatt atacgcactc tcacccttcc atcattgcta gcctcttcgg tatcgtgcat 240  
tgccctttct cacctcgaga gttgggtgcaa acttcgccgg tgcattccaaa ccccgatgata 300  
cgatacgtc tatcacacat aagcctcctt atatcttctt caaaacagcc accataccta 360  
cctatcatgg catttccata gccattccga gatataatgg catgcacctt tcatcatcat 420  
catatacatg acttgagcat ttattgtcat a 451

<210> 5630  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-F11  
<400> 5630

cggctctagaa ttaccggggtc gacgggcaag gaaatcccca acattgatcc tgagcatctc 60  
aaggctgccaa ggaaattccc caaacttcgt gtcaaggatg ccgatgctac ggctctgaat 120  
gtcttcaaga ttctccgggg cagtcagtc gatggtcata aagatgtaac ccttcgtgaa 180  
gaatgtctac ggctctgaat gctacgggtc tgaatgtcta cggctctgaa tgtcttcatg 240  
actctgagga ccttggtgta gattcaggaa gaagaagaat gaagatggcg ctactaggaa 300  
gcaatatcgt ctcttgctct aatatgaact agctttgcag tattgtagta tttgaatctt 360  
tcctatgttg tcgctctgtg tctcgatctt caaaactgct ggacggatgt gatgttttg 419

<210> 5631  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-F2  
<400> 5631

attcccgagt cgacgggggtc accaaagcag ggacgtttta atttcaaaaa aaaccataga 60  
tcattaggac attttagtac attgactgat tttctacggg tataatgtgc aaaaatcaaa 120  
tttgagctac atgcacacat gacagtgcac ctaaattggat tgcaaaaaca catgtgtctc 180  
actgggtgca tgtttactcc tcgtgcaaga aatttcaaac attgagactc ttaattttta 240



aattctagta catccaaaac ttatctaaag ttcataaaac ttatcatggt gtcattctaga 300  
 caccaataca aagtggcatt gtactttttt gtcaaatttg agaccagttt tgggtgaata 360  
 tgtatctaata tacaacggg agattattaa taatttggaa accattatcc caaatgaatt 420  
 atttattcga accgtgagcg ttagacaaac aatgg 455

<210> 5632  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-F3  
 <400> 5632

attcccgagt cgacgggagg cgctagacgt gcccgagaa gaagttgatc cagcaggtgg 60  
 tgttcgccag ctacgggaac ccgctgggga tctgcggcta ctacacgggtg ggcaaagtcc 120  
 acacgcccga ggccaaggag attgtggaga aggcgtgctg ggggaagagg agctgctgctc 180  
 tggccgtgtc gcacgaggtg tacggcgagg acctcaactg cccgggcacc acggccacgc 240  
 tggccgtgca ggcaaagtgc tccaagaggc agaggaccgc cgagcaataa gtaagctaag 300  
 ctcagatatg tactgctatg tagatcatct catcaccttc acctttgccg accatggtct 360  
 ttttcatgct gcttg 375

<210> 5633  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-F4  
 <400> 5633

aattcccgag tcgacggggt gcgtaccgga agccaaagcc gtcccacggc gacgacgacg 60  
 accggcccag ctacggccgc aagaagaatg acgacgacga cgacgatgag aggcgggtcgc 120  
 ggtacaagaa gcgcgacgac gacgacgatg atgagaggaa gccacggcac aagaagtgcg 180  
 acgatgacga cgacgacgac catgagagga ggccgcgcta caagaaacgt gatgacgacg 240  
 acgatgacga cgatgacaga aagccgcgtt acaagaagcg cgatgacgac gacgacgatg 300  
 atgataggaa gccacgttac aagcacgatg atgatgagga cgacgacgat gataggaagc 360

agcgtcgcgg ggacaaccgc cgccggcacg aatacgatga ttgatcaagg catcatgaca 420  
tgagtttagc tgacgctaata aagcatagtt gc 452

<210> 5634  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-F5  
  
<400> 5634

gtaccggtca agaattcccg ggtcgacgtt cgtgaggggg aacctgggtgt tcgccgaagg 60  
gaagcacgcc gggggccgct gcggcgccac catcctcgcc aagtgatata ctagagctac 120  
aatgtcattg ctgatttcta gcgtatatga tcgtgtgcgc tgtgtagtag tatgtatgtg 180  
tgcagatttg tagttgtttc cctgtgtata attggatccg gtgcatgcat ccattcccct 240  
ccattgtgta taccacacca ttcattggac agcaccaggt gtaggttatt tctctgaatt 300  
attcagatgt agtagttctg aacttctcag ttgtgataat atctatggga agaattgtga 360  
ttattctgcc 370

<210> 5635  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-F7  
  
<400> 5635

taccggtcaa gaattcccg gtcgacgggg ctagggacgt taaacgatag cgctagttgg 60  
gaggcaaccc aattttgttt gtgttttttt tctgttttag taataaatct tgcattctacc 120  
ttctgttttag atgtgttttt atcttttaaat tagtgtttgt gccaaagtaga acctatagga 180  
taacctatga tgatagttga tttgattctg ctgaaaaaca gaaactttgc acgcacgaat 240  
ttaattttgt caaatcacag agacgtgatt ttgcgttgat tctttttgct gatgatcaat 300  
agacagattt tccaggactt actattttgg tagggttttt agagttctag aagtttgcgt 360  
tagttacaga ttgctacaga ctgttctgtt tttgacagat tctgtttttc gtgtgggtgg 420  
tgccata 427

<210> 5636  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-F9

<400> 5636

ccggtcaaga attcacgggc cgacgggggg agctacgctg gtgcgccgcg ccctcgaggc 60  
cgtgcgccgg acgccgcgct ggcagaagag gctcgtcgct ctcaccgcag gagctggcac 120  
tttaagctat gcttgccagg ataaccgtgt tcttcaaata agtgatggaa cggggggcaa 180  
gaaaaaagtg gttatacttg gaactggttg ggcagggtgca agtttcttga gaaatatcga 240  
cacttctttg tatgatgtcc atgtggtatc acctcgcaac tattttatgt tcaactcctc 300  
gttgccgagt gtgacatgtg gcacgggtga agcacgcagt attgtggagc caattcgcaa 360  
tattgtgaga aagagagggtg gtgcattcag attctggga 399

<210> 5637  
<211> 328  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-G1

<400> 5637

attcccggat cgacgggaga cgctgcatgc aagtatgata gatcgatgat cgtccgaagc 60  
aagtggagtg cagtgcagtc agccagagga agacgaaggc gtttctatca gtccgatctc 120  
ctgccccctt tacatgatga ttattattat tatcttagtg catgtgtatg taatatccac 180  
catgaactga tgttacagta gactgccaca ttggtagtgc agtgcagcac agcacataaa 240  
aaaaaaaaaa aaaaaaagaa aaaaaaaaaa aaaaaaaaac aaaaaaaaaa aaaaaaaaaa 300  
aaaaagacat acaaaaaaaaa acgaaaat 328

<210> 5638  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-G3

<400> 5638

attccccgggt cgacggggcga ccggatgctc gtggagatgt aagtggaggc cgatacatcg 60  
ctcgcagata tagtgatttg tgtgttttac gtagcagatt cgggaggcac ttatggcatg 120  
acatcattgg cggagacgga atataggttg ggtacaatca tgtgacttca gaatcatgct 180  
ttatgaacag gtttcatgag catgggtcaag cgcgatctgc gaatacgttt cgtgaccatg 240  
ggtcattgtc atggagtaag ccaatccatt gacactccta tggacccatg gatgatttac 300  
atttttctct tgtcccaatt catccacata tgtatccggg tatccacacc cttctaactc 360  
ggccccatcg 370

<210> 5639

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-G5

<400> 5639

accggtcaag cattccccggg tcgacgggcc taaacactgg ctcaaagggt tctttcaaga 60  
atcatgagag aacattcaag gagtggatta tttggaaatt agaaccttca gatttcttag 120  
aacttcactt ggatttatgt gaatataagc gtaagaggtc tagtggcaat gctacaaaat 180  
cactgcaggc gatataataa cggtttagat agacggagac tgaatcagtt gacactactt 240  
tgatgtctat cgagccaatg ggacaacaaa gtccttgtag aaaagaagaa ccggaagcgg 300  
gttatctatc ttcacgagca agttggcgtc tgtaaactt caccggagcc attccagctc 360  
tttcagagcc acaaggcaag gaagttgagg aaccaagacc ccaacggtgc aaaacaattt 420  
ggcaatcgaa aggactaggg ctgccataag ggacctgta 459

<210> 5640

<211> 280

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-G7

<400> 5640

gattccctat agtgagtcgt atgacgatac attgctctca ggtatactga tttgtgtgtt 60

ttacgttgca gatccgggag gcacttatgg catgacatca ttgggggaga cggaatatag 120  
 gttgggtaca atcatgtgac ttcagaatca tgatttatga tcaggtttca tgagcatggt 180  
 caagcgcgat ttgcgaatac gtttcgtaac catggggtcat tgtctttgag taattcattc 240  
 cattgacact cctatggtcc catggatgat ttacattttt 280

<210> 5641  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-G8  
 <400> 5641

ttcccgggtc gaaggggtta ggaattgtaa atatgcattg ttgtatcgcg acctgaatga 60  
 atgaaataaa cgaaataacg ctcttggtaca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ggcccccaaa 240  
 aaaaaaaaaa aaaaataaac cccccaaaaa aaaaaaaaaa ccccctaaaa aggccccaaa 300  
 aaaaaataaa atggggggccc ttttaaaaaa accttttagg aaaaaaaacc cggattttaa 360  
 aaaaaaaaac ctttaaaaaa aaaacccctt tttaaaaagg ttggaaaaaa aaaaaaagcc 420  
 cccaaaatta tcccccaaaa aaaattttcc cccaaaa 457

<210> 5642  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-029-Q1-E1-H5  
 <400> 5642

cggtaagaa ttcccgggcc gacgggagag tggatacaga ataacttcat ccgcaggcac 60  
 acctgaccaa gctgctttta tcttgagcat accaaagagg aagccactgg acgagaccca 120  
 ggaaaccctt cgaacttctg ccttccccag taaccacgtg aaggaaaagt gggcgaagaa 180  
 cctgtacatc gcctcaatct gctgcgggag aaccgcgtgt tgacgacgta cttgagctcg 240  
 acggcgaaat cacccgagtt ttaccactgg agccagaaga gagttcgaga cggaacaaac 300

tcagcgtcaa ccttattatc taggtttcga ggcgaattgg ctgggcgctg acactggccc 360  
 ggectctttt ggttggcggc acgctattcc aattggtaag aatccttgca aaaatccttg 420  
 ggggtggtgt atcagtcctc atcggatgga tatgaacc 458

<210> 5643  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-A1  
 <400> 5643

taccggtcca gaattcccgg gtgcacgggt acaagggtga ggagaaggag ggctgcctga 60  
 cgctggggtg gcacacgcgc ccgctgatcg ccacctccgc atggcgccctg gccgcgccgt 120  
 gaccgcgagt tttgaacgct gtaagtacac atcgtgagca tggaggacga cacaaccccc 180  
 gcggccgccc cggctctccg gcgcacgcac gcacgcacgc tcttgaagaa gaagaagaag 240  
 ctaaattgtca tgtcagttaa cgctgaattg cagcggcccg ccacgatcga ccgtccggcg 300  
 tgaagagacg gacgacgacg aattccgagc cgaccatccc accggcatgt agtaatgtaa 360  
 tcccttcttc gtccccagtt ctccaccgcc tccatgatca accgttaaac tccaagccc 420  
 tacaactact actactacta ctactactac tatca 455

<210> 5644  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-A10  
 <400> 5644

ttcccgggtc gacgggcaag aaaaaattta gggaacttag tcagtcacgt ccagtcaagg 60  
 ctgttcaggg cagattttac acgccatcta acaaatttat ttggaagaca gcgattactt 120  
 ttgtcttgct tggagtgctt acccttggtt tccctactga agaagggtcca actctccagg 180  
 tcttaattctc ttgtgcggca aatatctatt tcctttatca gcggcttaaa agtggatgga 240  
 aatcattctt ttatgggttc ggctccttct ttgcttcttg gtttcttgcc acattcttga 300  
 tggtatcggg aattccgcct atactgcctg gtccaagaaa cttggaagtg agcacggcat 360

gtgttgctta cgcattcctt tttgtatcat caaccttcct gaaattacca aagtttggtt 420  
tt 422

<210> 5645  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-030-Q1-E1-A2  
  
<400> 5645

attcccaggg tgcacgggtt ctacgagaat aaatagtgtg ccgaatccat tgattgtcat 60  
caatttaaat tgggtgaagga taagcataat gtaattctta ttcttggttc atcgactaaa 120  
ttcaattcct tattccggag cctcatcaaa attctcggtt tcaattgttt catcttctct 180  
tcccgcaatt ccaagctctc tcaattatat catcaciaag atccatccaa gtcactacaa 240  
ggattcacct tgtgctttca acttctcttt ctttttggtt gatcattctt tcattaccgg 300  
agttcttcat gaaggttcta catgatggtt tcatcaagga ttaatttgt tctcgaagtg 360  
ttcatcaaga ttcttttcag aggagttcaa gcattcttca tcttgctatc cggagtgcaa 420  
tttcttctac agtatcatcg gagg 444

<210> 5646  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-030-Q1-E1-A4  
  
<400> 5646

gacggggctt cccatgatac taattagtagt aatatgggtat aaggatatac atgcgtcatg 60  
gagatatctt attactgagt ttgatcactt atgcatatctt atatggagta gatgtttgtg 120  
acaatagaaa caatgtcata tgatgacccc tctgttgctt atactatata ttattttaag 180  
caacatagta tatatgtaca ttgggtcggag attacaaata tgtaatgata cttattttat 240  
gtttattttt acccctctgt atctaaaagg aagtataaag aaaggtctta tatttttaaa 300  
aaaaaaaaa caaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaaaaaaaa aaaaagaaaa 360  
aaaaaaaaa gcggccgctc taaaggatcc aag 393

<210> 5647  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-A6  
  
 <400> 5647

ccggtctaaa attcccgggc cgacggggca gaagaaagta aaagaagcat tcgaacatgc 60  
 atggtctggc taccgaaatt atgcgctggg tcatgatgag cttatgcctt tgagccgcag 120  
 aggtgtagac ggattaggag gtctaggtgc tactgttgtg gattcttttag aactgcaat 180  
 aataatgggt gctgacgata ttgtgtctga agcatcaaaa tggattgaag acaacctaata 240  
 gaaaaagatc agcgagaaag ggcagggttaa cttatttgaa accactatcc gtgtcttggg 300  
 agggcttctt agtgcgtatc acttgagtgg tggagaccaa gcaggaggag gtgattctgg 360  
 gatagcagta acacctaaca agactaatcc agatcgtctt ctggcaatct caaaggattt 420  
 agcagacaga ttattg 436

<210> 5648  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-A7  
  
 <400> 5648

attcccgggc cgacgggaat gacaacttat tcctagtat ttggaggtga agcggttcta 60  
 cctttggagg taaaaatcac gtcattgaga gtcgccacac atgaaaattt atcggaagaa 120  
 aaatcagtac aattacgtct cgatgaattg gatagactag aaggaaggcg acttgaagct 180  
 ttgcaaaatc ttgaggcata ccaagctagg atgtcgcgag cattcgacaa acgagtcaaa 240  
 agaaggctgt tcaacaagg agatctagta cttgcggtca tccgtcctat gaatatcagc 300  
 cgacggatga aaggaaaatt tgaacaaaaa tgggaagggtc ccttcgtcat aaaagaggtt 360  
 tattctagcg gcgcatatag aatcatatca ccagatgggg aatactcacc ggcaccgata 420  
 aatgagaaat ccttaagcat tac 443



<210> 5649  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-B11

<400> 5649

attcccggtt cgacgggacc atcaaatgca tgcatttatt tgtgaacggc accagtacgc 60  
accacaatag atgtttagg actcgtttgt tcccatgcat ctctaccaa ccatgtccct 120  
ttccttcaac caacgagctt caaactgggt gtatcctctc ggttgctgca ggttacctcc 180  
gacagcccct taagtatcca ggaaaacagt tttgtggtaa gatttttgtt ttctgcggtt 240  
acaacctttg catttggaac tacaccatga aactctccat tacaacaac cgtatccagt 300  
cgttcccggt gcctcatcct tctccatgta aactgatctc cggtaaacc cctatcttca 360  
actcacagtc aatcagagca tcacagaaat cttgcatcat gtgcatcgga tgtggagctc 420  
gtccct 426

<210> 5650  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-B4

<400> 5650

attccagggt cgacgggtct ccccgaggac ccaaccatct gtgttcccca aaaagaaaaa 60  
aaaaacatgg tagtagtaat gtaatgctgt aatggaatta cccgagatgt gtactagctg 120  
ttttgtggcg cgccgcggtc tcgctgtgag cgagtgtgta cgggctgttc cgtggtgtgt 180  
gtgtctgtgg atgattgtgt gttgcgttgc cgtgggactg gtgcaagtgt cgtgtgatgt 240  
ggtatgcgtt gtgtgtgggt ggggtgctgta tatttgcgta cctctatgtg tactgaccgt 300  
gatgcgttgt ttgtccgttt tatctctcta tatattgtcc gttgtttgtc cgttcggcat 360  
cccagctggt gcgtcccagc cgagagattt ggcacgcgga gaggaggaag atccgcgatg 420  
gacatgggga tgcacga 437

<210> 5651  
<211> 378

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-030-Q1-E1-B8  
 <400> 5651

ttacaacacc ctatagttagg tcgtattagg atggaggagc anaggatttc attctgaatt 60  
 atttttacat cagttattga ttctgttaat acatattcta cctcacatga cctcgtcaga 120  
 aacaagtttg ttttacgtat gccatgtact caaaaaagtt cccacagaa aaaagttcca 180  
 aaatcccggg ttgcctttt ctgacaggca attgagcatc cttcactgaa gttgtgtgtg 240  
 tgctcaatca gtcttcagcc gtgggacttc actgaacctg gttcacagag ctgttcattg 300  
 gaagactgcc aacgtcgtgt gttcggttcc tgggtgtgct gcttctaccg aatacatcca 360  
 cgacatgaat ttgttcac 378

<210> 5652  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-C10  
 <400> 5652

gtctggaatt cccgggtcga cgggttctgc gaaaggtaaa ctgcatctgc atctcttaga 60  
 tggagttcac agatttgcta cctttaggtt ttcttccgc aatgaatct ttctgaatta 120  
 atagttacca gaacggtatt tgctacaatt gcttccttct taagctgac aggtgtttgt 180  
 ttttctccag ggagatgtga taacaagttt cgacgggtgc tcggtaggat gtgaaggaac 240  
 agtaccattt cgggtccactg agcggattgc tttccgtac ctcaacagtc aaaagtaagt 300  
 gcttcctcac aagtaccatc attttcttaa tcatcttgaa gtgcttttcc taaccttttt 360  
 aatttattta tgttctgttc tagggcagaa cattttttgt caccagtttc taatgggtccg 420  
 gaaat 425

<210> 5653  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-C3

<400> 5653

aattccaggg tcgacgggaa tctcaacaat ctcatctgga gcagtgggat cagaagcgtg 60  
ccccgtatgg ttccgctgag gattgccccg aggaggaacg atgatgagga cgccaaggag 120  
gagctctact cactcgtcac cgttgccgac gtgcctgctg agggtttgaa ggggctggga 180  
accaaggtcg tcgatgacac tgagtagact cttttcttta tctacatcgt tagaatgagc 240  
tgttatttgg aattgcacca gcatgctttt tgtatccccg agaagttttg gagtatggaa 300  
tatctggagc tatctatttt ccttcactta aatcttgatg attgggtttg tccttcatac 360  
tgtgctcggt attggcgtca atacacgatg tgc 393

<210> 5654

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-C4

<400> 5654

aattccaggg tcgacggggt gggagatcct ctccgtcttc aaaagcctct gtaacagttc 60  
agtctcgcaa aatctcgaag gttgggtgata gcgtgttcat tgaggaaatg cctgatattc 120  
taaggagacc ttcttctcct ggtatcgtga agacttggtc ccctaatagga aaaagagttt 180  
caccgccaca taatgcactc agcatttcac caaaccgaaa aggagggcgg aagctgatac 240  
tgaaatcgat cccctccttt ccatcactgg ttggggacac gagcgggtgga tctgcaatat 300  
gcagctccga cagcacaaca gctcttgctt taggtccatc gtaaaagtgc ggctgggcag 360  
ccgattatcc gcgaccggag tacgacttgt agtccgataa tgggtacctcg catatgaact 420  
ctgcggcaag gctcaagta 440

<210> 5655

<211> 285

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-C7

<400> 5655

ttacaactcc ctatagttagg tctgtattact agcaccttgc cgggagccct caaaggaaga 60  
 taaagggggg aataatgagg tcgaaagcag ggccccatcg ctaccaattc caagcgaggg 120  
 agtgagcgcc tccgtgaagg aggataacca aggggaagaa tctgaccttc tctcgcttcg 180  
 aggaatgaag aggactgcct ctgaagatcc ggaaaccaat gtttccaaac acgagaagaa 240  
 ctctccacca taggggttctg ccttggacgg tgctcttgcc gcaca 285

<210> 5656  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-C9  
 <400> 5656

gtaacggtct agaattcccg ggccgacggg ataagtagct cataatcaag aaaatatgta 60  
 taatttgagg atcacgagtt catgacatgg tgcttaggac atgggtgcga ttcagagtaa 120  
 attgatctga ctggcaatgt tttcttttca taaaactttt gatctattca taacatcatg 180  
 gcagcataaa gaacatcaaa aataataaaa catagtaagt aataacaatt acattgagca 240  
 tttcaatgga aaataaaatt gttgccaatt tagtaaggaa tattaatgcc catgacaacg 300  
 cctgggaaaa aatctagttc ctatgaacaa agatagaact tggggtagca ttcgagtaaa 360  
 ttgatctaatt tgacaatatt ttcttatgga aaaagtttgg ttttattcat agcatcattc 420  
 tgataatcta aagcacatta aaa 443

<210> 5657  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-D11  
 <400> 5657

ccctatagtg agtcgtatta tctgctgctg caagcagccg cctggcactc ataaggggtgc 60  
 ctactacgcc atccatcaca tgccggcgat tgtacgggac cagcatcaac ttctgctatc 120  
 gagtaaacctc aaagattggg ccgcgatcat gttggcaatc catgacgcgg acatcagaca 180  
 agaattcttt cgcacttagt cggattttgc agaaatcatc tatcaagatg tccttcgtac 240

ctcggggcag ttctacctca gaaatcacgc gtcgaacagt gacatcgaca caatgctaca 300  
tatgccggct gacaatgacc gttagttcat gactcccatg atctgagggg acctcatcca 360  
cgcatccggc cccttgagtc c 381

<210> 5658  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-D2  
<400> 5658

gtcgacgggc cgtgcaatgc cctttctcac attgagagtt tgcgcaaact ttgccggtgc 60  
atccaaaccc cgtgatatga tacgctcttt cacacataaa cctccttata tcttctctcaa 120  
aacagccacc atacctacct attatggaat ttccatagcc attccaagat atattgccat 180  
gcaactttcc atcattccat tcatcatgac acattcatta ttgtcatatt gcttagcatg 240  
atcatgtagt tgacatagta tttgtggcaa agccaccggt cataattctt tcatacatgt 300  
cactcttggc ccattgcata tcccgggtaca ccgccggagg cattcatata gagtcatctt 360  
tgtcctagta tcgagttgta atcagtgagt tgtaaataaa tagaagtgtg atgatcatca 420  
t 421

<210> 5659  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-030-Q1-E1-D3  
<400> 5659

attccagggc cgacggggag ttcagcgaca tactggccgc cgtggagcac gaccggcgga 60  
accaggaggg cgcgttccgg cggatcctgc ggcgggagta ccggccgtac ctggtgatgg 120  
ccgtggcggt ccccggtgtc ctgaacctca ccggcggtgac cgtgtcgggc ttcttctcgc 180  
cgatactctt ccggaccata gggttcggta gcgacgccgc gctgatgggc gccatcatcc 240  
tcggcctgat gaacatcggc ggcacatcgc cctcgggcgt cgccatggac cgctacggcc 300  
ggaagctgct cttcgcgata tgcggcgccg tcatgttcac ctgccagggt gcaatggcga 360

gcatcgcggg gacgcacctg nggcacggga gcaagatgcc caaggggtac gcngtggcgg 420  
tgctggtgct gacgtgcgtc 440

<210> 5660  
<211> 270  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-D4

<400> 5660

acaccctata gtgagtcgta ttacgtggtg caccagtggc ggccaccagg aaggcgcctt 60  
ccggcagatc ctgcggcggg agtaccggcc atgcctgttg atggccatgg cgtgggggggt 120  
gttcctgaga ggcacgcgac tgacgcgtgt cggccttctt ctcaccgata ctcttccgga 180  
ccataagggtt cggtagccac tccgccctga cgggcacat catcctccgc ctgatccaac 240  
atccgaggta gcaactctc cggcgtctcc 270

<210> 5661  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-D6

<400> 5661

ggtctagaat tcccgggtcg accaggcttt tgttttcgtt ctggagcttt tagcccatg 60  
aatggccaa ttgcacgtgc cactagcatc aacggtgagt cgtgtctggc atcactttct 120  
ctattgctac ttccatcgcc ctgcactgat ctgcaaatgc agtcaacat tcattttatt 180  
gaactagtat atatattgaa aaagagacga catcaciaag agtgtgctaa caagaatgga 240  
aatcaatac actagtctgt cagtgagtga ttgtgtgatg gcctgtgctc acttatgtac 300  
cagccgttgt catttgatcg gagtaactat atcattgtgg gacacttgca acggtaggaa 360  
cgtgtgttac tatttttggg accccctgtg aacatttgaa caaaaagagc aaatgtttc 419

<210> 5662  
<211> 146  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-030-Q1-E1-D7

<400> 5662

acaacaccct atagtgagtc gtattatcta ngccaatnac gaggcgtcct gcagctaata 60  
gctacagcga tcgtcgatcg tctcagggcat caccatcccc attgcgacag cgaacagggc 120  
acaaccatag gcgcgggagc actaat 146

<210> 5663  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-030-Q1-E1-E1

<400> 5663

attccagggg cgacggggca ccctcttggg gaagttgttc ttgttgggga aggacttggc 60  
cttgtctttg cgaatgagct ttccaccatt gtcttccttc ttctcatagg agaaatccac 120  
cataatgtgg ctcacattgc cacaattata gcatgtactc acacgttgct tgcccttgga 180  
gccacttgag ttgttcttgg agaagttggg ccttgagttt ctcttgttgc cccaaaattg 240  
ccttcataca agagccatgt gtccttggtg agcatatctt gtgtcttcgg ggcaactctc 300  
ttcctcctcc tctcctctct cttctctctc ttctctctct tcttctctct ccaggatagc 360  
cttggccttc aaagctaggt tgggtgagga tttttcgacc gttggacatg agctagagcg 420  
ttgtcngcgg tcttgttc 438

<210> 5664  
<211> 424  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E10

<400> 5664

ttccccgggc gacggtcgat ctgtaacgac gaggtggagg ttgttttttt gtttttgggt 60  
tggttttgtg aatcggtcgt gaagttgaag ttgacgaaga agacgaagac cctgccggag 120  
tgcggcgggt gacggacggg cggggcggcta gaggcgggag ccgccattgt tgtaattaa 180

aagattagta gccaaagtga atactactag gatcatccat gatattgctt ttttttcctt 240  
 tccttttcctt cctgttaatt actccatggt tttcccctag taattataag acttgattca 300  
 ttcttgatct gagcttgctc atggcaattg gtccctccatg tttgtagtat gcttgtaccc 360  
 atccctctcc tctctgcaca cttttttctt gttctctgaa gaagaagaag aagaagaaga 420  
 agaa 424

<210> 5665  
 <211> 106  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E11

<400> 5665

tggtaatccc aatagtgagt cgtattagag gggggggcgg cggcgagtca gggcagggcc 60  
 agcgagcagc aatgggggtc gtctccgtcg tcgtggaggg tccgct 106

<210> 5666  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-030-Q1-E1-E2

<400> 5666

cgccgccagg tacggctcca gaattccagg gtcgacgggg aagagttccg tcagcacgac 60  
 ggtgtggtga cgatcttgat gatctaccgt cgtagggtt cgctaagca ccgctacaat 120  
 attatcgagg attatgggtg agggggggcac cgcacacggc taagagaacg atcacgaata 180  
 tcaacttggt tgtctagagg tgccccctgc ccccgatat aaaggagcaa gggggacgcc 240  
 ggccggccct tgtggggcga ccaaggagga gaagtcctcc tcttggtagg agtaggactc 300  
 ccctctttcc tactcctact angaggggga aaggaagggg aagagggaga cggaaaggg 359

<210> 5667  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-030-Q1-E1-E3

<400> 5667

aattccaggg tgcacggggc tgcagtcgga ggtcttcccc agccaggagt atgagccgcc 60  
gagcaatgcc ggtagccccg gaggggggct gaacgacgcc gagattaaga actagaaaaa 120  
gctcatgggt cggctcatcc attgagacgt aagggtttga tattgtaacc cgcatttcgc 180  
cgcctccatt gtatgtatat ttattctgtc cgagttgctg ttgttgcgta aaactgtggc 240  
agcaatgtga gcagattgac atgtttgcgc tgctgacctg agtggctgcg atgcacgttt 300  
catcatcagc actggaaatg ctgttgtttc gcagaaagtt caagtttggtg tgctggtttg 360  
tataaatttg gtcatttttc taattgggac tcgtttggaa gatatgtttt atgttttttg 420  
caccggtttc acatgaaaaa 440

<210> 5668

<211> 443

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-030-Q1-E1-E4

<400> 5668

attccagggc cgacggggct ctctttgggtg taccttgctg atctgggtcc gtcgcctttt 60  
gccgctcttt ttgactctaa tcgacttggtg ttctctctct cgcataacct gcgtgggggc 120  
taggcaggtg cctcgcgaag tggttttctt tctccctgcc ttctgccagg tttttcgcga 180  
ggccccctcgt tcgagccac aagttgggtg atctctccta atccgtgccc ctccggtacc 240  
gcgatatgaa gcgttggtg aaggcttggg cgaacgataa gtttcccggt gaagtttcct 300  
agcgagcttc ctaacgaatt ttttctgcag ttctgagcg accactaagg tcaagacgag 360  
cacgaggaaa caagtgccca gtgaagaaga agctaccccg aacgcgcaaa gctaagttac 420  
ctccacacan aataacgaca cag 443

<210> 5669

<211> 236

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E6

<400> 5669

cctacagtga gtcgtatgat aaattccagg gctatctttc tcgcgaacgc gagaggctga 60  
ggcagcacga cagagccatg atgggcaaga actactgcag accggggctc actttcgacg 120  
tgtcaccatg tgaactatac atggaacgaa gtatctctat gagacatatc atacagatta 180  
tcgctgcctt ccaatgccac cttttgcttc tgccacccat cacatatcac tgaccc 236

<210> 5670

<211> 173

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E7

<400> 5670

acaacaccct atagtgagtc gtattatcat atcttgttct agctttgagt tgtaattctt 60  
gagttgtaaa tcaataaaag tgtgatgatc ctcattacta cagcattgtc ggagtgaggg 120  
aaaggatcat gaataccacg attccccac aagttgggat cacacttcga tct 173

<210> 5671

<211> 254

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E8

<400> 5671

attccccggg cgacgggagg ttcagggaga gaagcgacgg ggtagaagt tgtaaatatg 60  
cattgttgta tcgcgacctg aatgaaataa acgaaataat gctcttgctc aatcgtcaaa 120  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aacaaaaaga 180  
ataaaaaaaaa aaaaaaaaaa taaaagaaaa ttcatacatc ctatagaatg taacctaaat 240  
tcaattcaat ggaa 254

<210> 5672

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F10

<400> 5672

ttcccggttc gacggggagg atatgtggtc ttccagacat aggaggtcat ctcatgaaaa 60  
taccgctggt ggttttccaa gttttgcttt gtatgcggtt ggaggggtaca ccacctagcg 120  
ctcgctacat tccaatatatt gctcttttct cccactatt tattctacaa ggagctggtg 180  
tccttttctc gataggaaga ttggtggaga aagttgtttt gctattgcgt aatggaccag 240  
ttagtccgaa ttaccttaca gtatcatcaa aagtccgtga ctgtttcgct tttcttcac 300  
acgggtcaag gcttcttggt tgggtggtcta ttgatgaagg gagcaaggaa gagcaagctc 360  
ggctgtttta tactgaatct aacgggtaca atacattctc tgg 403

<210> 5673

<211> 232

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F11

<400> 5673

tcaacggtta cggctgcaaa aaaacaacaa aatcacgga cggcgcccat atttgctacg 60  
caactgagaa cgtcagctaa gctcaaagt ttggggcatt tggaccacct gagtatgcgc 120  
ttgtccatt ctgacttcag tgggcgctag attaattagc cgctctccat gattgaaact 180  
tacattgcat ctgtccgact tccttaccgg ccgctcttgt cacctaaaat ca 232

<210> 5674

<211> 265

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F2

<400> 5674

atagtgagtc gtattaaacc gacgggggtta gaggttgtaa gtatgcattg ttgtatcgcg 60  
acctgaatga cataggctaa ataatgctct tgttcaatcg tcacaacggg ggaaggggag 120  
agtgcaggca aagaagaaac aaaaagggcg gacgcccaac aggggtgaatt gtctaagcgt 180  
ggatgcaatg agagttcagc catcgtaaat cttgacttgt aacttctagt ccatcgaaat 240  
cgctatcaaa gcttcatgac tggga 265

<210> 5675  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F5

<400> 5675

```

aggtaccggt ctagaattcc cgggtcgact tagcgatata ctgggatagt ttcttctcag   60
cttgtggatc tgtttttttg caactcaggt tatgttactg cattgcaa atagtcgagat  120
aagcttgtgt aatcctacat ttttctcctt gggttcatgt tctcggcaga atgatcagga  180
aagctgtgca cgtttgtgtg catttacaaa gacagtgaga tggacatttg ttttttgttt  240
agctcatgca ttgcttgc atcttttttg gtgattgatc tttatctgtg gtttcgatgc  300
tatgagtgtt cattcacatt agctctgttt cttttaacat cactagcaaa agggcccgtg  360
cgttgcacca ggagaacgaa atcacatgcc cctaaccxaa taagaatcaa tcttagaaat  420
agtcatgtaa taagagtcaa tcggttacac cc                                452
  
```

<210> 5676  
 <211> 287  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F6

<400> 5676

```

attacaacac cctatagtga gtcgtattaa attggctttt gacttgcggt cttggatggt   60
ttgtcagaat attggacagt gaaggtattg ggatgtacca gatgggtctcc cttggaatgg  120
gccagctgaa agagatgggc cttactgccg taggaccccg gagaaaattg atacaagcta  180
ttgacattat cagcaagccc ggtcagttcg agatcttttc ttgatctcaa gtgtgtctcc  240
gttcgtttgt tacatgtcct tgttgctagt cagttcaatc actgcag                                287
  
```

<210> 5677  
 <211> 203  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-F8

<400> 5677

cgcggttgct gttgcaattc ccaatagtga gtcgtattac aggatggctt attgggtgtgg 60  
gaacaactat ggatgcaatt tagactcgtg ctgataagct ggttgccag gttctacgac 120  
gagggcatgg ggctctcgga gttattcgtg taacttgata tgcacttctt cctctctcat 180  
aatgctgttg tgtcttatat cat 203

<210> 5678

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-G1

<400> 5678

attccagggg cgacggggcg atggactttt cctaccaatc tatcccccta ggggcatgcg 60  
tagtagtact ttgcttcgag ggataataaa cttttgcaat aagtatgtga gttctttatt 120  
actaatgttg agtccatgga ttatacgac tctcaccctt ccatcattgc tagcctctct 180  
agtatcgcg aacttttcggc gttaccacaa acccatcata taccttcctc aaaacagcca 240  
ccatgcctac ctatcatggc atttccatag ccatactgag atatattgcc atgcaacttc 300  
catcatcatc atatacatga cttgagcatt cattgtcata ttgctttgca tgatcgtaag 360  
atagctagca tgatgttttc atggcttgct ctttttttta tgtcattgct acgctagatc 420  
atcgcacatc tcagtacact gct 443

<210> 5679

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-G2

<400> 5679

attccagggg cgacggggct gagcagaatg aactccaatt tgctgtgcca ggaggggctta 60  
ttgggtgtggg aacaaccatg gatccaactt tgactcgtgc tgacaggctg gttggccagg 120  
ttctaggaga aatcggggcg ctccctgacg tattcgtgga gcttgagatc aacttcttcc 180  
ttctccgaag gctgctgggt gtcagaacaa agggtagaga gaaggcaggt aaggtctcca 240

agctcaccaa gggggagatc ctgatgetta acatcggatc catgtccacc ggcgcccgtg 300  
 tggtcgccgt gaagaatgat ctcgccaagc tccagctcac cgcgcccgtc tgcacaagca 360  
 aaggcgagaa ggtcgcgttg agccgcgg 388

<210> 5680  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-G5  
 <400> 5680

ccgccaggta ccggtctaga attcccgggt cgacggggca tctatggcta ataaattagt 60  
 taataaacca taaggaagtt ggaatacagt aggtttaaca ccaaataaaa taaataatga 120  
 gtttgttaca gtaccttatg tggtggtttt gctttctttc actaacgaag cttatgagat 180  
 ttcctgctga gttttgtggt gtgaagtttt caagttttgg gtaaagattt gatggactac 240  
 ggaataagga gtggcaaaag cataagcttg gggattacca tggcatccca agatattcaa 300  
 gaatagccaa aagcctaagc ttgggggatgc cccgggaagg catccctctt ttcgtcttca 360  
 ttcattggta actttacttg gagctatatt tttattcgcc acatgatatg tgttctgctt 420  
 ggagcgtcgt gtatgataat agtat 445

<210> 5681  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-G6  
 <400> 5681

tcccgggtcg acggacgatg gctaataatt ctttgcaata agtatgtgag ttctttatga 60  
 ctaatgttga gtccatggat catacgcact ctcacccttc caccattgct agcctgtcta 120  
 gtaccgtgca acttttgccg gtgcattaaa cccaccatat actgttcctc aaaacagcca 180  
 ccatagctac ctattatggc atttccatag ccattccgag atatattgcc atgaaacttc 240  
 caccgttccg tttattatga aatgcaccat cattgtcata tggctttgca tgatcatgta 300  
 gttggcatag tatttgtggc ttgtccactg ttcatatatt tatacatgtc acgctagatc 360

attgcacatc ccgatacacc gctgaaggta ttcatataaa gtcatatc 408

<210> 5682  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-G7  
 <400> 5682

taccggtcta gaattcccg gtcgacggga cactctgtca tcttctgcc acaattggac 60  
 tccttccaac gggggcgggc acgcttcagg ctactcaaag gaggtgacc caaccacagc 120  
 ttgaaagctg aagcactaac cacaacatca acatccaacc tttttgacat ttgcaatccc 180  
 agttttcaca ttaccatcct tccccacctc tttttgcttg tgggtgtttc ggagtctgta 240  
 gctatttagt actttctatg tcgtgggcta ccagaggctc cctagaggct gcaaattttg 300  
 tcgctgagta gaagcaaggg aacggacgga ggggtgtccc agtttctcct gaggctatat 360  
 gcgtgtatta actgaaggcc gtggaaggca aaactcgtgg ggagctctct gagatttttg 420  
 actgt 425

<210> 5683  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-G8  
 <400> 5683

gcgttgctag ttgcaactcc ctatagttag tcgtattacg ctcatcatcc ggggcatcgg 60  
 catcatgatg gtcagcctca acggtatcgc cgtcggattc agtcgcatga tctatagcca 120  
 gagtgcgca atggggggag ctctgggca gagtcttctt caccttctgg gtgctagctc 180  
 acctgtatgc gttcgccaag ggcctcatcg ggcaccgctg ccgctctaga gcgatgtagc 240  
 ttacatacgc gtgcatgcta cgtcagacct cttaaagatt gtcactcaat ttgaactcat 300  
 tgggggtcca tttaaaatgt catgattggg acaaacctcg actgttagta atttaattgg 360  
 cttggactaa a 371

<210> 5684  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-G9  
  
 <400> 5684

ccgggtcgac gggaatgctg cagaaggata gagatatcaa tgaagacgtg agccatcgaa 60  
 tcaaagccgg atggatgaag tgggtccaag cttttggcgt tctctatcac aagagagtgc 120  
 cacaaaagct aaaaggcagg ttctatagga tggccattcg acccgtaatg ctgtatggcg 180  
 ctgaatgttg gccgactaaa aggcaacatt gttcataagt tagggatagc ggagatgcgc 240  
 atgttgaggt ggatgtgtga ccacacagga aaggatcagg tccagaatga tgatatacgt 300  
 gacagagttt gggtagcact gattgaagag aggcttgtct aacatcgtct gagatggttt 360  
 tgggcatatt cagcgcagac cccaaaagct 390

<210> 5685  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-H1  
  
 <400> 5685

cgccggcagg tacggctcca gaattccagg gtcgacggga tcctagctga ggaaatccac 60  
 aagaccccc tggcaagcgc catgccgggg acgactacaa cgccatggca agacccttgc 120  
 cgggcccccg gcaagaccct tgccgaaggc atcagcgggg ccactgccag gcccgcgcca 180  
 gccaaaggctc cgccaccgtt cgcatacagc taccagccca accagctggg caggcacctg 240  
 cgtggcaaca tgcggcttac aagccaactc accaagcacc tacgtggtgg catgcagatc 300  
 ttcgtgaagg ccctgccatc gcgccacctc agcagcctgc ctgcctacat ggcactgcac 360  
 acatcgtctg cctgggcgcg tgtcgaagcg aggcggagcg gcgacggatg ggacgggcct 420  
 cgttcccatc cccgataaag ctaatggaca cctaagtagc gcattt 466

<210> 5686  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB104-030-Q1-E1-H3

<400> 5686

attccagggt cgacggggaa tttcatttgt ttgggagcgg gatTTTactt cagagaaggg 60  
cgctgctttt tctttgagag gagaaagaga aagagaaggg cgctgctatc gcgacatggg 120  
ccgacccagc cgcgcgggat gcgatattaa ccatgtacac aaaatgttac ctccccaaaa 180  
aaatgtacac aaaatgttaa aattgaccat gtacacaaaa aatgttgatt ctcaaaaaaa 240  
aaaagttaag aatgtattat aaaaatatat tacatatata ccaaattta caatgtgtat 300  
aaaaaaagta aacataaaaa actaagtttt aaaaatcatt tatttcagaa atatttagca 360  
tttgataaaa aatgattcta atgtatatga aaagtgttga atactctctc catccggaat 420  
tgcnttgtcc agaaatggat aata 444

<210> 5687  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H7

<400> 5687

ggtctagaat tccccgggtcg acgtcatgga etcgatgggc acgcgcaacg tgaagctcca 60  
ggtccgggat ctcccggtgcc tcatcagcag etcgggcagc agcagctgct tgcagctgga 120  
aggacacaat tcataacacg gtgaggaagt ttaaagaagg atcatttggt gccctcaact 180  
gtgtcatact gcggtaggtg tagtctacgc tgtgtagcaa cagggtttgg tagtctgtac 240  
tgtacgcgtg tagcgtgtta tgtagcggca atggcgaaca ggaagtgtag tgatcgtcgt 300  
gcaggcatga cggtgcaggc acgatgtcgt gcctgtgacg aaacgggtgtc atggaggtcc 360  
ctgagaggat gtcatgacaa taatctgttg tcatgaaggt ctgcggtgcc tggctgcaaa 420  
tgtatcgaaa actcgaactc ct 442

<210> 5688  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H8

<400> 5688

ggctctagaat tcccgggtcg acggggggcgg gagctttgta ccaccacgct ggtagacctt 60  
cttaccctccc tcaaccaaca agccctcgct atcactatca tcagaaaagc tgtcctcgcc 120  
accatcagca aggtcactag cctctagagc ccattgggat gaagactttg ggaccggagt 180  
ctcctggggc aaaggctcgg cggcccgagc ctcgtcggtc cgaggctcgt ggaccggagt 240  
ccgagacagg tccatgtcag acgggtccac ctcagacgga gcagtcctgt ggtcgggaga 300  
atcatctggg ggtggcggca aggaagggtgc accagccttc ctacctctcc cgctgccatg 360  
tccaccteta gcacctctet tcgtcttccc tcgaccttcc ctagccgaac aagaaacgcc 420  
caacggtggt gtctgcatac tgtct 445

<210> 5689

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H9

<400> 5689

cctatagtga gtcgtattag gagaaggaag atgatactcg ccgtgctctt cgccaactcc 60  
gagggcaaca tcctcatcga gaggttccat ggcgtccccg cggaggagcg gctgcactgg 120  
cgctccttcc tcgtcaagct cggcgccgag aacctcaagg gcgccaagtc cgaggagctc 180  
ctcgtcgctt cacacaagtc ggtctccatt gtgtatacca tgatcgggga cgtctgcctg 240  
tacattggtg gcaaggatta atatgatgag cttgctttgt tggaggatgat cttcgctggt 300  
acgtcagcgg ttaaggatgt gtgtgccata acacctaccg agcgccctcg cct 353

<210> 5690

<211> 384

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-A1

<400> 5690

gggtcgacgg ggatcagcac ctcgccgtcg gaggagaaca tgcgctactt caatgtcatg 60

gtccttggcc ccgcgcagtc gccctacgaa ggtggagtct tcaagcttga acttttctta 120  
 cccgaggaat atccgatggc tgctcctaaa gttaggtttc tcacaaaaat ataccatccc 180  
 aacattgaca agcttggttag aatatgcctc gacatcctaa aggacaagtg gagtccagct 240  
 cttcagatac gcactgttct tcttagcatt caggcactgc tgagcgcccc aaaccagat 300  
 gatccccctc cagaaaacgt cgcaaaacac tggaaatcca atgaagctga agctgttgag 360  
 acagcgaagg aatggactcg tatg 384

<210> 5691  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-A12

<400> 5691

attcccgggt cgacggggca ctgcatggag taggggccaa gtctcctgga tcacgtttgg 60  
 ttggaaaatc acgatcccga aggtttcatt ccgcttggac tccgtttgat attctgcaaa 120  
 aaatagcaat tctgggctgg gcctccggtt aatcggttag tcccaaaagt aatataaaag 180  
 tggaataaa agcctaatat agtccaaaac agtaggtaaa gtagcatgga gcaatcaaaa 240  
 attatagata cgttggagac gtatcaggca tcccaagct taattcctgc tcgtcctcga 300  
 gtaggtaa at gataaaaaag aatttttgat gcagagtgat actttggcat aatttgaatg 360  
 taaatcttct taattgtgat atgaatattt 390

<210> 5692  
 <211> 174  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-A5

<400> 5692

cgctctatag gatccaagct tacatatgcc ttcctcctac gtcataactc ttctacaggt 60  
 tcgggtagat tcatctcaca ggacggtgct ttacaccatg accactggga aaattctgag 120  
 gatactcagg ttcatgtcct thtagaccat ggacgtatcg acaccgtgt tttt 174

<210> 5693

<211> 383  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-B5  
  
 <400> 5693

```

gggtcgacgg ggtgccaaat agaaccgttg ggaagacttg gggaaagtct ttttgatcct   60
gctgtaaaaa acagaaactt tagtgctcgc gagaattgat gccatTTTTT tattggagag  120
ttctattttac ttaattcttt ttgcatatga ttaatagata aattcctcgc gtccagaaat  180
ttatttttaga atttttggag ttccataagt attataaacc tacatattac tacagactgt  240
tctgtttttg acagatactg tttttcgtgt gttgtttgct tattttgatg aatctatcac  300
tagtaacaga gtttataaat catagagaag ttggaataca gtaggtttta caccaatata  360
aataaagaat gagttcatta cag                                           383
  
```

<210> 5694  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-B6  
  
 <400> 5694

```

aattcgcgcg tcgacgggat tagctagatg gcgcataagc tcgtgaacat cataacgcag   60
atggatccca gggacccttt cagaatagag atgacggaca tgctgatcga taagctgtat  120
aatatgggtg taattccaac aaagaagagc ttggttaa atgtgagaaact ttcagtgagc  180
gccttcgcca ggcggagact tgcaacaatt atggtgaagc tcaagtttgc tgaacacctt  240
aaagaggctg tcacctacat tgaacagggc catgtgcgtg taggccaga gacggtcacc  300
gatcctgcct tccttgtagc caggaacatg gaggacttca tcacctgggt ggattcctca  360
aagatcaaga agaagatcat ggagtataat ggtgcattgg atgattatga tgccatga   418
  
```

<210> 5695  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-B8

<400> 5695

gtaccggtca agcaattcgc gggtcgacgg ggaagacgtg gatgatgacg acgatgatgc 60  
agacgaagag tatgaggagg aggatgattt gggagaggag atcgatgagg agggatgatga 120  
agatgacact gttgttgagg tacttgacgt gccagtagt gatgatgagg aggatggcat 180  
cgatgaggat gatgatgatg atgaggagga ggttgaggat gatggatgatg gtgaggaggc 240  
tgagccagag agtagtggaa gggttgctat ggcggtgagg ggtgttgagg aagagattga 300  
tgacatgatg caaggtgaag gtgatgatga ggatgagaat ggtgagatcg gagaggaaga 360  
tgaggaaaga ttgaggata gtanggttta tgaggaggac aacgatgatg acgatgctga 420  
tgatgaggat gaaga 435

<210> 5696

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-C10

<400> 5696

ccgggtcgac gggattagg atgccaggcc cggctgatcc ctggaggatg gaacgccgat 60  
cgatcgattg gccgatctgt tggtttcttg cgtccttcaa ttggttgtgt acatatagtt 120  
ttaacgtctg attcaggggtt ggcaccgcca tgtagaccat cgatcgtttt agatctctac 180  
ttattgattg attctttctt caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaataa ataaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaac aataaaaaaa aaaaaaaaaa aaaaaaaat gggcccccca 360  
aaaggttcca ggcctaa 377

<210> 5697

<211> 418

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-031-Q1-E1-C12

<400> 5697

attccccgggt cgacggggta cagccgtgcc gacggtcgta ctctccgctc tctcggaggc 60  
ggaagctcgg cgggcgcgag aggccgtagt tgggtccactt cctcgccccg tccgaccgga 120  
cgcgccgctc gcgctcgggg tcgcttccgc tgtcggatct gctcccgaag ctgcgtctgg 180  
agctccacat gcggccccac atggtggctg gaggcggaag gtggtcgccg gcggcgagaa 240  
atgtggagaa ggggtggga attgcgtggc tcggcggcag cgggggatag ggtttcgacc 300  
cgcaaacgcg tcgtggaaca gtagatatag tggtcggggc gtgcggtttg cgggccgagg 360  
caaattttgt tacgggccgg acgagtatgt gggctctgtt ctgancgaaa aattgggt 418

<210> 5698  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-031-Q1-E1-C8  
<400> 5698

aattcgcggg tcgacgggga ggttgagaag ctgattggca ggatagtga gtggctgaag 60  
cccggtgggc atattttcat cagggagtcc tgcttccacc agtctgggga ttccaagagg 120  
aaagtgaacc cgacgcacta cggggagcca aggttttaca ccaaggtgtt taaggaatgc 180  
cactcctatg accaagatgg gaattccttt gagctttctc tggtaacttc caagtgcatt 240  
ggagcttatg tgaagagcaa gaagaaccag aaccagatat gttggctatg ggagaaggtc 300  
aagtgcacag aagacaaagg ctttcagaga ttcttgga caatgcagta caaatccact 360  
ggaatcctgc gttatgagcg cgtgtttggg gagggttatg tcagcaccgg tggattcgag 420  
aacacaanaa gattttgtgg acaacct 447

<210> 5699  
<211> 350  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-D10  
<400> 5699

gtgagtcgta ttacagtacg aatccgtacg tatggaaact cgggtggacta tacggtcatt 60  
tgctgggtgg actccgtaga tcggactgga gctctcacga tgaagatggc aactttctct 120

gacgtgtgtt atatattggt gagtgcacatg atatgatatg atacaatgca gctcaggata 180  
tcagcgtgtg gtttatttca acttctatgt gagtttctct ctattttag cagtgcagatt 240  
agcacgtgta ctcttttttg attaaatcat ttttgatgta catttctttt ccattttttc 300  
tatatgatat ggtaggacat attctacaca aggatctacc ttgcattttc 350

<210> 5700  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-D11  
<400> 5700

attccccgggt cgacgggggt gacaacgccg tggagggcgc cgaagagggt gatcctgcgc 60  
tagaggagac ggtcatggag gagaccatcc gcgtgacacg cgccaagcta aggaggcgtg 120  
ccgccgccga ggcgggcgcg tgaagcctag ctgcaaacca ttgttttatt ggccgcattggt 180  
gttgttgctc ctattttttg agtctttttt agattgtcat gttgtctggt ggagagaata 240  
tctgttggtc atccaattgg tcgttctggt tcagaagttg tcatecgttc ctttcttctt 300  
tcctgtggct ctgcctggcc tgtttatgtg cctggaagtt gtaaataatca ccgggcatgt 360  
gtatatacag attgttgga tgtgctacga cctacgaatg catctatcct actgctctc 419

<210> 5701  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-D12  
<400> 5701

ttccccgggtc gacatcttcg tccacgggac tggaagcagc agcaacatca ccggcctttg 60  
taagtatctc aaggagaaga accccaacgc aagggtgaag ctcatcttgt ttctgttatg 120  
ttaagatgta aattagatga tcctgtgatg ggtttgatgt gaaggttggt tgtgtgcttc 180  
agttcaaaca catctttgga tgatcctggt atcttggtgc ttatttattg tttaaatac 240  
acagttcaat ctttgtgttc tctgtaatat gggagaaggc gtggaacaga ggaagcgtgc 300  
cacgtgaatg gatccagaac cgtgtactgc taaaaacgtt gaagggtactc tcttctcttc 360

tccccctttc tttgttttgt ggcgacttga tggcttggtt cggttcatg

409

<210> 5702

<211> 346

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-E8

<400> 5702

gctattcact atagtgagtc gtattacact tcccctgtgg tactcagtac gatagcttgt 60  
acaggaccga caccatcttt cagctgaagt tcgagcgctt tcgcgacagc tggcaaggct 120  
gtctgcatgg atatgtacgc atattgtgta tcccatgtgt cgtgtcagac aactgatca 180  
taagcggcac gttgggtcag atacttcgat ctgccgttcc ctttgagtgt gacaggatct 240  
tcctgtgtcc tcgagacttg catagagatg catatgcagt aacgtgacgt gcaatcaccg 300  
acttagagta gtgtcagtct gttatcattg catacctgcc taaatc 346

<210> 5703

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-F1

<400> 5703

cgggtcgacg ggttctgtta ttgactgatt ctgtttttcg tgtgttggtt gcttattttg 60  
atgcatctat ggctagtatt aagtggatg aaccatagag aacttgaaat acagtaggtt 120  
taacgccaac ataaataaag aatgagttca ttacagtacc ttatgtggtg gttttgcttt 180  
ctttcactaa cggagcttat gagatttctt gttgagtttt gtgttggtgaa gtttacaagc 240  
tttgggtaaa gatttgatgg actatggaat aaggagtggc aaaagtctaa gcttggggat 300  
gcccattgga cccaagata ttcaagaata gccaaaagcc taagcttggg gatgccccca 360  
gaaggcatcc cctctttcgt ctttgttcat tggttaactc acttgagct atatttttaa 420  
tcgccacatg 430

<210> 5704

<211> 446



<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-F7  
 <400> 5704

attcncgggt cgacgggaat ccctagcgga tcttggttact cttgggtgtt tgagcatcct 60  
 agacgggtga ggtcaccgag aagccatagt ccattgtggt gaagcgatcat ggtgtcggtg 120  
 ggagcctcca attgagttgt ggagattgcc ccaacctcgt ttgtaaaggt tcggtcgccg 180  
 cctccaaggg caccaatagt ggaatcacgg catctcgcat tgtgtgaggg cgtgaggaga 240  
 ttacgggtggc cgtagtggct tcttggggag cattgtgcct ccacaccgct ccaacggaga 300  
 cgtacttcct ctcaaagga aggaacttcg gcaacacatc ctcatctcca acgcctccac 360  
 tcttggttgt ctgtgcctt tacttgtgga agcttatttg tttcatatat cttgcttgct 420  
 tgtgttecta tccgtgttgc atcata 446

<210> 5705  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-F9  
 <400> 5705

attcccgggt cgacgggaaa ccatagcaag gcacgcaaac atcgtctggc agtcgcagcg 60  
 attgtggagg actacgtgaa cttgccagc cactcagaac aacgcgacga cgacttgata 120  
 tcatcgccag gacgaccggg cttcatgtaa gaccgtatca taattgccac accagtgaat 180  
 gatcatcgtc taactcccat tacacttctg tgatcacctc tcctctacta gcaccgcagc 240  
 agcagcagca agggatggag taccgaacgc agcacgaagg cagcgtctac tcggacctca 300  
 tggagacgtt cttggagtaa caacgcaacg catgcatgca tgcgtcgatc gatcatcctc 360  
 actacgacat gcgtaccgac tttatgtttt cttgttccca cttttgttt tgttccaacc 420  
 aa 422

<210> 5706  
 <211> 394  
 <212> DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-031-Q1-E1-G5

<400>       5706

```
attcgcgggt cgacggggac cacaagaga agaaggacaa gaagaagaag aaggacaaga   60
agcacggcga gggccacaag gacgacgacg accaccacaa caccatcatc gcatccatt  120
agcattctac cattttcctc ggagagaagt agccagaaac agcagcgcca tggccggcat  180
catgcacaag atcgaggaga agctccacat ggggtggcggc agcgacgagc acaagaagga  240
cgaggagcac aagaaggcgg aggagcacia gaagaaggac ggggagcaca agaaggacgg  300
cgagcacaag gagggcatga tggagaagat caaggacaag atcagcggcg acggccacgg  360
cgacggcaag aaggacggcg agcacangga gaag                               394
```

<210>       5707

<211>       412

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-G9

<400>       5707

```
attcccgggt cgacgggtac aatgacgtca ggaagcactc gtcggaggcc tacgtgatca   60
tgtccaatcg gttgtcatcc ccagaccoga cggagctcct cgagtttgcc ggcgggttat  120
ccaagaccgt catcgacgtg cactactatg tgttgttcaa tagcatgttt gatactttca  180
ccgtgcagca gaatatcgat ttcataaga ccaactactc aagcgtcttt agcactgtca  240
cgaagcagaa cggtcctctc acctttgtag gtgaatgggt ggctgagtgg caggtgcccc  300
atgcaacgaa ggaagagctc caaatgttag caaatgcaca aatggatgtg tatgggaagg  360
caacgtttgg atgggcttat tggactctca agaatgtaaa caaccactgg ag           412
```

<210>       5708

<211>       373

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-H10

<400>       5708

gctaaaccct agagtgagtc gtattacatt gttgcataaa cggcatatgc gacaccttca 60  
tagaatgatac cagaggagcc ggaggcaacc gcataggcct ttttggaggt cttggcctcg 120  
tctatgaaac ctctttatgc ggggtgcgaca atatctcagc tggatgccat ctcgcaactg 180  
attgcagtca aggctgagta cggctgtatc cacatatgct tcgaagcatt cctgggagta 240  
tggtgctaaca gcctccctga ggggtcatgaa ctgccgataa gcatgtacga tacaacgata 300  
atcatgaagg cactctctat ggattatgag aacatatatg tttgcccga taattgtctt 360  
ttgtttatgc act 373

<210> 5709  
<211> 311  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-H11  
<400> 5709

attccccgggt cgacggacaa atggacagag aagtacaatc taggcgtcat cattgaccta 60  
catgcagctc ctgggtcgca aaatcccttt gagcacagct cctccaagga tggtcaca 120  
gactggggca ccaacgacac taacatcgca caaactgtgc aagtggata tttcctcgca 180  
tccaagtatg ccaaaagccc aagcctcctc gcaattgaac caatgaacga accgttggcg 240  
cccggggtat ccctgtgaga gaccataaac gtattatagc gacaggtata cagtctctc 300  
gagacacaca c 311

<210> 5710  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-031-Q1-E1-H2  
<400> 5710

aattctcggg tcgacaggca aacaaacttc atcttcacct gcaactaaca acgtataag 60  
aggggctgag caaaagcggg gacatagcca aacaacgggt gctaggacaa gttggttaga 120  
gggttgacat ggcaataggt angcatggta aacaaaggca ggcagggcta acataacgaa 180

agagcgagta ctagcaagca aagatagaag tgatatcgaa ggtatgatca tcttgccctgc 240  
aaggttctca gagttgtcga aggctggatc ctcgttagcg tactcaacag gttcctcgtt 300  
cacgtactcg tctccccggt ctacccaaaa taagaacaca agcaaggaac cacaataaat 360  
cacggtgcaa tgcacaggca tcatgatgca aaacatgtca tgatatgcga gaggtgatat 420  
gc 422

<210> 5711  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-A1  
<400> 5711

taccggtcta gaattcncgg gtcgacgggg attatatatta taaaacttgt catgattatg 60  
attacccttt tctgaacatt actcttttaa tgtggaaaca attttttagtg ttcaagtctt 120  
ttatgatact cttactattc tgaatgggaa gaattttgct tgtagatcat gaaaagaatg 180  
ctttaggtgc tgggttatatt attgaattca ttcgatgatgc tacttaaaat tattatgagt 240  
gaggaatata tgcttgtagg aattgcaata atatcaagtt ccttccccac gtgcttaaaa 300  
tcttgaagct atgcttggtt taccttccca tgctagttga ttattgttcc cctaagttgt 360  
ttgctcacia aatccctatt cataggaagt gggtttaggt taaatgtgct agtcatatgc 420  
ttcatgatgc tcccgttatg tttcaattct taaccttt 458

<210> 5712  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-A6  
<400> 5712

attcncgggt cgacgggggc ttctatgagc aatttgacac aaagaaaaaa tgtcacggag 60  
attgttgctc ggacaacttc tcgggagagg aatgcaacgc aaagagccaa atcgggtgggg 120  
tgtttgacgc tcttcgtgct actgatgacc tggtgatgag gagggcatat tttaggaagc 180

agcagcttga caacaaaaca acatcaccta actctaactg aagaggacag ccggtgtgat 240  
 ttgctcttac attgatatcg catgcgtatg aataatggtc caatggaatt gggagcggag 300  
 taagaagctc atgttgcctt tatgcatgta ataatcatgc ctgcctgcat ggcccgctag 360  
 ctgttggtcc aatgcctggc tgcctgcctg aactggcgtc aatttccagt ttgtttttgt 420  
 aatatataat aact 434

<210> 5713  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-A8  
 <400> 5713

gacgcgctgg tcgttgctac accctatagt gagtcgtatt agccgaggcg aatgaagacg 60  
 aagcggcgtc ctccaacgat aaggacatct aggagatcaa cgtggaggat gaccgtagtg 120  
 tcgccagcgc cgctgcctcc gtgggcgtag tcaccaagga ggatgacagt atcatctcgg 180  
 ccgatgctcc ggcgatagag aaggaccaga tcgacacgtt cgtgcctgca ccggcagtca 240  
 aggccaacga ggatgccggt gccaccttcc tggctgcccc ggtggccggt gatgatgcca 300  
 gtgcctcctt cgttgctgcg ccggggcgca tcgacgacga acttgtgtcc atctcgtctg 360  
 ctccgttggt ccgggacatt 380

<210> 5714  
 <211> 199  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-B10  
 <400> 5714

ggtcgacggc gttcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaaaaaaaa aaaaaaaaaa aaaaaaaagc 120  
 ggccgctcaa aaggatccaa gctaacgtac gcgtgaatgc aacgtcaaag cccttcaaaa 180  
 gggtcaccaa aattcaatt 199

<210> 5715

<211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-C10

<400> 5715

```

gggtcgacgc ggcgggtcat tgggtgcgtc ggatatggat tccctttcga ctgcctccac 60
ccccgtgcc acgaacgatg ctgaggtggg atcccaggaa gggatccacc atgaggagga 120
ggccccggag gtgtcacagg acaaactccc ggactttgca ctggactcag ccccgagacc 180
cacagtggct ccggagtccg gtgggcgacc ctttcgtaag aagggcaaga ccgtgacgcc 240
ggctgcctcc atccaaccgg aggtgccgga taatttgcta gaggcgtca acggtgcctc 300
catcaaagag gaacaccgca ctgttatgag tgcggtgatt cagaaggttc agctcgccaa 360
gagcaagctg accgaagcct gcagcagcct tctaac 396
  
```

<210> 5716  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-C8

<400> 5716

```

ccctatagtg agtcgtatta gttgatcctg ctgaaaatca gaaacttttg cgcccagtaa 60
attagttttg ataattcaca gaaacgtggg tttgatctga ttcattttgc tctggatcgg 120
tacacacatt gctcaggttt tcctaatttg gtaggatttt tggagttaca gaagtattcg 180
agagttacaa attactacag actattctgt ttttgacata ttctgttttc tatgtgttgt 240
ttgcttactt tgatgaatcc gtgagtagta tcggagggta tgaaccatag agaagttgga 300
atacagtaga tattacagca atatagaaga tcaatgagtt cacaacagta ccaaccgtgg 360
tgatttattt tctt 374
  
```

<210> 5717  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-032-Q1-E1-D3

<400> 5717

gggtcgaggg gcagtgtcag tagacgtcgc taggtggtct gcggacatga ttgcattttt 60  
tattttctgat gtgctttata ctaccttgat agttgatgaa tagatctgaa gttttttcaa 120  
aaaaaaatta aaataaaatc ttaagatggt gtgccgaccc atctcgaagg tgctcatagg 180  
gtaaaaaaaaa atatattatc atactactcc ctctcgttct aaatatttgt ctttctaaag 240  
atttcaacaa atgattattc cctcogttcc gaaataactg tctttctagg catttcaa 300  
gggcacaaca tacggatgta tgtagacatt tagagtatag attcactcat tttgctttgt 360  
atgtagtcac ttgttgaaat ctctagaaag acanatatct gggaacggag ggagtacatg 420  
taaagcaaaa tgagtgaatg tataactctaa aa 452

<210> 5718

<211> 328

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-D5

<400> 5718

accctatagt gagtcgtatt acgcgagctg agcaccagat caaatttcaa ctttaccggc 60  
tcagtctcac aaagacgttc ataacagtga gtacatatat gcgtacatgt tctgaggaaa 120  
aaactcacag ctccgaataa aacttgacca agagttgtaa atactccaag ttgctagctg 180  
tgatgcatga acgctacgtg gtagtcgac caatgacctg gttcagcggg actctgatcg 240  
gctatgacat ccgcggccgg cccgtcttga cagccatcac tccacgccat cgatggtgtc 300  
atgcacatcc gatacaaagg agtgatac 328

<210> 5719

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-032-Q1-E1-D6

<400> 5719

attccccggg cgacctccgc ggacaagggt cagcgcacatg tggcggagat cgacaccgat 60

ggtgacggct tcacgactt cagcgagttc atctccttct gcaacgcca cccggggctc 120  
 atgaaggacg tcgccaaggt cttctgaatc agttcatttc acctcagccg tccgatccag 180  
 gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc 240  
 ccgatccagc ctcagcttca cctgaggccg gccctaattt tgtttgatca atttttttgc 300  
 tactagtagt aactagtgat gatcactggt gcaccattta tttattttat atcgtcacaa 360  
 ctttccagtg tttcttttct ttctctacct ttttgtcgat cgtcggctcc agctcgatcg 420  
 aacgatccat gctgctaatt gtntgtg 447

<210> 5720  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-D7  
 <400> 5720

ctatagttag tcgtattact gtctgactct gcacgtatgg gagctagttc aacaatatga 60  
 acatgtgccg gtggttcaat gggctaggac agccgatcta gcatgtcttc acaatagtct 120  
 cattctttca tgctaatacg atcacacgct tagggagcgc ataagctaac tgggctcaag 180  
 tatctcccaa tcagcataat taacgcccac cgcccttttg aaattaggac ttaactactc 240  
 atgccatatg catgcatttt gatagacagt gtttattgat ctctctctca ctactctct 300  
 ctctctctct cactctataa ttagctcaca tcgtcataga attgacatgt tt 352

<210> 5721  
 <211> 335  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-D8  
 <400> 5721

tgtaacaccc tatagttagt cgtattacag acttcacga caaggacagg atcatgtaca 60  
 agacctcgat gatgacagcc ctctcgggc ggagcttcgg aacaggccct aagacgggat 120  
 ctctgggata cagaacgttg cagtgggtga attacatttg tggctccata tctgttcggt 180  
 tgggggtacg taggtatata tcggaggaag aagtatgtcc gtggagctct gagggggcca 240



cgatgcaagg gggagcgccc gccatcctct tgaccgcctc ttttgttccc tgtcgtaagg 300  
tctacgtctc ctgcatgacg ttcagtgaga acatc 335

<210> 5722  
<211> 145  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E10  
  
<400> 5722

atagtgagtc gtattagatg gtgaagtggc tgaagcccgg tgggcatatc tccatgaggg 60  
agtcctgcgt ccacgagtct ggggactccg acacgaaagt gaacccgacg cactaccggg 120  
agccaaggtt ttacaccacg gtgtc 145

<210> 5723  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E11  
  
<400> 5723

gggtcgacgg gccggctgaa gcgagcgagc cgtccggtgg ctatttcggc tggctgcact 60  
gctgcatccc ggtctgggaa gtgatagtc tggccgtggc gagcatcgcg ggcttcctgg 120  
ccgggtttct tcttcgatg gcagtcgaca agatgagcaa caaggccaat ttatctgggt 180  
aagtttatct ggttacacta gtagtgaata gtgctctaga attatggttg tgggtgtttag 240  
ctcagcatat atatatatat attgctgaaa gcatgtcgat cgatcgctg tcgtggcatg 300  
gcacgtactc ttctgccgga gttaagtacg tgtgagttcc tgtgtttggt tcatgtgcta 360  
cagcttaaatt tgcgtagcat gatttagtgt 390

<210> 5724  
<211> 65  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E5  
  
<400> 5724

cctatagtga gtcgtattaa gtactaccca gattggcaga cgacacgagt gaaatgggtg 60  
cttta 65

<210> 5725  
<211> 292  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E7  
  
<400> 5725

tactacacc tatagtgagt cgtattaagt agaacttggg ttgaataagt tcttgaagta 60  
catgattgca ttattatgca gacgagtatg aggaagttct ctgtaggaat tttatgtgga 120  
tgaagtgttc gactaatcaa aagagtctca atatgagaac aaggaagaaa agcatgaaga 180  
tcaagattgg gatgcacacg gcaaccaagg tgaatatgca gaggtactca agcatcaaga 240  
catggagatg aagaagaagg cgtcgactca tacgacgacg aataacaata ag 292

<210> 5726  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E8  
  
<400> 5726

cccaatagtg agtcgtagta ttggttgtct gaacctgatg gatatgaata aagttgtagc 60  
atacattcaa attcaaacat gcacacagtt tggaaaagca gcaattaaat tgcggtgaaa 120  
ttacgctctc caggctgtca cggcacacat ggttggtaaa atacaaacat ttgcgatttg 180  
caccataatc cgagacggtt cacagacagg aaacgtttgc aagcatgcac acagttgccg 240  
tttgcaaagc atgtgctatg tcagacaata tcacaaacgg tgcgggcaaa ctaaagcttt 300  
gtgttagttg ccttatcgta caggtatcgc aaccatgaac tgtttctgat gaagtatgca 360  
tcgtaaacgt tgcaccacag aatagcgtgt 390

<210> 5727  
<211> 269  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-F10

<400> 5727

cctatagtga gtcgtattac acgatcaacc ttcttatgaa tattaccact gtgtctgtca 60  
tacgtcttgt ctattaatga acatctcatc attggcctac tgctctttgc atgatcatgt 120  
agatgtcatc gtacttgtag tatggccaac ttcatgattt tcatacatgt cgctcttgat 180  
tcattgcatt gcccggtgaa tcgcccgatg cattcatata tagtcatatc ttgttctagc 240  
tttgggttgt taatccgtaa aagtgtgtt 269

<210> 5728

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-F4

<400> 5728

acaccctata gtaagtcgta ttatgacgta caaaacttaa actgcagcta accgcatgca 60  
tgtttcacac taagctgatt cttttgctac atagctcagt aaaagtgaat taaaccacct 120  
tctttttctg acagtcaata attagatgca agggcctctt gctaggttta gttagactta 180  
atgcaagtgt ctcttacttt tatttcaagg ttggtgctat ttttcgaagc aaacttccaa 240  
gttctgcata ctaaatagtc tgatcaagta actaaagtgt cctaaatacg tagcaaagtg 300  
ggccagttcg cttctgtgac gatacaacac atcctggata ctagtaaata tcattagtgc 360  
cttctctttg tccagtttgt ggacttatag aatttgag 398

<210> 5729

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-F7

<400> 5729

attccccgggt cgacgggtgc tgagagccag accacagagg aagaacttga agtgtacatg 60  
cagaaccaca aaaaagttat ggttgattcc ttgtggaagc ttaatgttgc tgacatagaa 120  
gccaccatat cacatgtctg ccagatggtg cttcaggacc cttgggccag gaaggatgac 180

ctgcgtcttc gtgccaaagg actgaaaact ttagggaaaa ttttccaggg tggttaagctc 240  
 aacagtgggtg agggggaagg gtcgcacatg aagaatatag ataacatgga tgacaatgcc 300  
 ggtagctccc ctgattcgtc accaaaacgg gagccatcat tcaatcccat tcctaaccct 360  
 cctcttacct agagtccata tgggagggt cccagtttg gcggaaccta ttgttcgttc 420  
 aac 423

<210> 5730  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-F8  
 <400> 5730

atagtgagtc gtattaaaga acctgagtcg tgaatgcaga agcacacaat ggttacgggtt 60  
 gattccatgt ggaagcttac tgctgctgac atataaacca gcatatcaca tgtctgccac 120  
 atgggtgcttc aggagccctt ggccaagaag gatgacctgc gtcttcatgc cataggactg 180  
 aaaacttttag ggaaaatttt ccagggtggt aagctcaaca gtgggtgaggg ggaagggctc 240  
 cacatgaaga atatagataa catggctgac aatgccggta gctccctga gtcgtcacca 300  
 gtacgggagc catcattcaa tccattcct aaccctcctc ttactcagag tccatatgtg 360  
 gaggtcccc agtttggcgg aacct 385

<210> 5731  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-032-Q1-E1-G1  
 <400> 5731

gggtcgactc tttctacaaa gaattaatca aggaaattca acaatacagc cagcaggttt 60  
 ggtgttgtcc catgtacgat cactgggtgt gtttgagggt tttgtggaaa tcccttctct 120  
 ggaggaattc aaacatctgt gtgttctcca cttagccat tgccaatcat tggaagaaca 180  
 tcatcttgag aatatagtga ggttgcccca gctaaggtag ctgaacctca aaaatacaga 240  
 aataaggaag ctcccagaac aaatcgggcg ttaggttgct ctagagttgt tggacctaa 300

acacacttgt gtagaggaat tgcctgcac tattgttaat ctcaaaaaat tgacgcatct 360  
tcttgttgac tatggtgtta aatttcctga tggaattgan gagatgcaag cattggagac 420  
attggaagag gtcaggttct ccaaaacaac a 451

<210> 5732  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-G2  
<400> 5732

tcgccattgg aaccctaaca attgtactgg ctctactca gaatagtgc ataagaatgt 60  
tccatgctag cctcttgat cttctgctt tgatggctgg acttatattg catcggtgc 120  
ccaacgaaca taacgagcat aacaacattc atcacactag tgagatcgct ggggttctcc 180  
gcggcgccga tctgtgggac gaagaagaaa gagctagaca gaaacaggaa gacctgaaac 240  
attctcgctg tgctcaatca cgccctccaa ttgcctatgc ttctgtaacc ccattccct 300  
tcttgctgt gcctgtgtac gtctctccag aagctcatga gttttgaaaa tcttgtcnca 360  
gcagccaaag ctgcaatggt ttcattctcc ttcctttttg tctgttgta gaaaattctt 420  
ttccgctctt gacaggaaat ttac 445

<210> 5733  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-G7  
<400> 5733

attccccggg cgacggggca atcgacgcct tcgtctccgg cgccaccgtc tatggctaca 60  
gaggaaagag cattaagtct gccctcattg gtggttctag cctggcattc acatctgcca 120  
tcctggacgt tgggtgtaat actaccagag tggacaatgg caaagcgtac catgcataca 180  
caacggaaaa gaagccccgag cctgcgcatt gaccaagggt gtttacttgt agcacaaatc 240  
atgcaaacca gctcgggtgaa tttttgagct gatgcgtgct gttatgtctg ttttgctgat 300

gcacctagtt cctttgcaaa gctgtagtaa cttgttttgc tcgagggcaa tacaacagac 360  
 ctggaataaa tatcttgttt tattttgctt catcattggt tatgataata atcacatgtg 420  
 acacaatatt gttaccccaa ccc 443

<210> 5734  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-G9  
 <400> 5734

ttacaacacc ctatagttag tcgtattatg actcctgtca gcaaagtgtc agtgggtgga 60  
 catatggtac atgtgaagtt atcatagaca tcagtgggtg catagaatcc tatgcaagta 120  
 ttgctgcgga tgggtatcgga agcggagcgc tcttgatggc aatgaagtac catgtcagta 180  
 tatcaaatag tcctttgtgg gattacatgc caatgggttt ctacatctga tcatctccga 240  
 aatttttgca ccgtacttca gccatgttat gccgcgtttc atcttttgct tgtaaagata 300  
 gtacatcaac cctttatgtg ggaaaagccg atagtgggta gatgctgtgt agaaaatagg 360  
 catacaggga acctaacaac gacattttcc gcatcacggt ctattccttg cag 413

<210> 5735  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-H5  
 <400> 5735

attcccgggc cgacgggcat cttcaaggcc gtagctccga atttaatgaa ctttgtatgt 60  
 aacatgacta gaatttcgtg tagatcatcc tgggtgcatct taacttgctg tttaacaact 120  
 tgtacataat acttattcag atctggacca atttcgaaat ttgcttatga ggacttaccc 180  
 gatttgttac atgttggttc cggcctcatt taaacttgct ttgatgtgtt gctctagtat 240  
 gtatcatatc ttgccatgag tagcgtaaaa tagcctttgt catgcatcat gcttggttgt 300  
 gcatcttgtc atgtttatgt gttgtgtgtt taccatgtgg tttgctcctt tccggttggt 360  
 cttcttctcg atagttcctg tttcggttgcg atcgtgagga ttcgttctac ta 412

<210> 5736  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-033-Q1-E1-A8  
  
 <400> 5736

gtaccggacg tagaattcgc gggtcgacgg ggatttagaa ggtactaagt aaaccacacc 60  
 tacatatgca aactaagtgt tgttttgacc tcaaattgca tataaatcaa atactaccac 120  
 atataattcc tcccaaatta ctaaaaccca caaattaatc actatataaa ccattgcaag 180  
 agctaatacta gcaatgagag atgaaaagac aaagttgcta acctttgtga acatttgaat 240  
 ggatgggggc cttcaaactc tgacaaaatt tgggcagaat gtgtgatgag ctcgaggaag 300  
 aaggaagaa cagagcacgg gtggacgaag ggtttatata ggacggcctt tagtaccggt 360  
 tcgacgcacg aaccggtact aaaggtgctg gaggggcccc agactgacaa catcctgcc 420  
 ccactctctt tagta 435

<210> 5737  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-033-Q1-E1-B12  
  
 <400> 5737

gtaccgatcc caaattcgcg ggtcgacggg ctgaacttaa tgctggtgac gagaaaatta 60  
 gagagttgat atcagtttta gaccaaagga aggatgaatc aattgaacgc acatttaaag 120  
 gagttgcaag gcacttccgc gaagtgttct ctgaattggt gcaaggtggc cacggatact 180  
 tggttatgat gaagaaaaag gatggtgatg ctggcgatga tgacatggat gaggacgcgc 240  
 ctctggaagc agatcctgaa gggaggatag agaagtatat tgggtggaag gtcaaggttt 300  
 ccttcactgg caaggagaa actcagtcca tgaagcagtt gtctggagga cagaagacag 360  
 tgggtggcatt aacactgatc ttcgctatcc aacgatgtga cccagctccg ttctacctgt 420  
 ttgatgagat tgatgctgct ctggatcctc agtaca 456

<210> 5738

<211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-033-Q1-E1-B5  
  
 <400> 5738

```

attccccgggt cgacgggagg caccataga ggcaacaatt cagtcaattc ttgaaatggg 60
tggtggaaca tgggacagag acactgtgct gcgtgcccta cgtgctgcat tcaacaaccc 120
ggagcgggct gttgagtatt tatattctgg tattcctgag ccgatggaga ttctgcacc 180
accaccaagt gcccagccag ctgacccctgc cctggcttcg caagcagctc aacctgcagt 240
tgccctcttc ggtcctaata ctagcccccct ggacctcttc cctcaagccc tgccaaatgc 300
ttcagcaaat gctgctggtg aaggaaatct ggatgttttg cgtaacaatg cacaattccg 360
aagcttactt tctttagtgc aggccaaccc tcaaattctta cagccattgc ttcaagagct 420
gggaaagcaa aaccctcaga tt 442
  
```

<210> 5739  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-033-Q1-E1-B8  
  
 <400> 5739

```

gtaccggacn tgaattcgcg cgctcgacggg gcgtattgaa ttatttgagt ctttatttgt 60
tagttttcca caatcatcct tgctgcacac ccctttttga gagagacaca cagattcgg 120
aaattattag aatactctat gtgcttcact tatatctttt gagttatata gtttttgctc 180
tagtgcttca cttatatctt ttagaacaca tcggtggatt tgttttatag aaaccattgt 240
tctctcatgc ttcacttaga ttattttgag agtcctacaa acagtatggg aatttgcttt 300
aattatttga ggcattcaag attaaataaa taaatttttc ttatgagtgt gttgaatact 360
atgagaagtt tgaaacttga taattgtttt gagatatgga gattgtgata ttagagtcgt 420
gctagttgag taattatgaa tttgagaaat 450
  
```

<210> 5740  
 <211> 442



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C12  
 <400> 5740

attcgcgggt cgacatcctc aaggcaggca atgtcctccc tggcatcaag gtggacaagg 60  
 gtaccattga gcttgctgga accaacgggtg agaccactac ccagggtctt gatgaccttg 120  
 gcaagcgctg cgccaagtac tatgaggctg gtgcccgtt cgccaagtgg cgtgcagtcc 180  
 tcaagatcgg cgccaccgag ccatcgcagc tctccatcga ccagaacgct caggggtctgg 240  
 ctgcgtatgc catcatctgc ctggagaatg gtctgggtgcc cattgtggag cctgagatcc 300  
 ttgttgatgg acctcatgac attgaccgct gtgcttacgt caccgagatc gtccttgctg 360  
 cctgctataa ggccctcaac gaccagcatg tctcctcga gggcactctc ctgaagccca 420  
 acatgggtcac ccctggttct ga 442

<210> 5741  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C7  
 <400> 5741

taccgatcct agaattcccg ggtcgacggg atcccggaag tcacgaggag ttccggaatg 60  
 gtccggaggt aaagaattat atatgggaag ttgagtttcg gccattcgga aagtttcggg 120  
 gttcaccggt actgtaccgg gaccaccgga aggggtcccgg ggggtccaccg ggtggggcca 180  
 cccatctcga agggccccgt gggctgaagt gggaggggaa ccagcccata gtgggctggt 240  
 gcacccccct ggtccccccc tctgcgccta gggttgggaa ccctagggga gggggcgctt 300  
 ccaattgcct tggggggcaa gtctcccccc ttggccggcg cccccctag gagatcccat 360  
 ctctagggc cggcgcccc ctgggggtccc tatataaaga ggggggttgg a 411

<210> 5742  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-D11

<400> 5742

gggtcgacgg cacagtggaa ctctcaatga aagcaccaat gtcggtgtca aaaccggcgg 60  
atctcgggta ggggggtccc aactgtgctg ctaggatcga tggttacaag agacagggga 120  
cacgatgttt acccagggtc gggtccctctc tatggaggta ataccctact tcctgcttga 180  
ttgatcttga tgaatatgag tattacaaga gttgatctac cacgagatcg taatggctaa 240  
accctagaag cctagcctgt atgactatgg taatgtgtat atcctttccg gactacaccc 300  
cccagtttat ataaacaccg ggaggatcta gggttacata gggtcgggta cataggaagg 360  
aatcttcata gttgatcgct aagcttgctt tccacgcaa ggagagtccc atccggacac 420  
gggtacagtc tt 432

<210> 5743

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-E4

<400> 5743

cgggtcggcc tccgcggacg aggtacagcg catgatggcg gagatcgaca ccgatggtga 60  
cggcttcacg gacttcagcg agttcatctc cttctgcaac gccaaaccgg ggctcatgaa 120  
ggacgtcgcc aaggtcttct gaatcagttc atttcacctc agccgtccga tccaggagcc 180  
gatccatcta cgtacggctt cgtatatcaa tttcatgcaa ctacctactc cgggtcccgat 240  
ccagcctcag cttcacctga ggccggccct aattttgttt gatcaatttt tttgtacta 300  
gtagtaacta gtgatgatca ctgttgacc atttatttat tttatatcgt cgaaaaaaaa 360  
aaagtcaaac gaaagaaaaa aagcggggcg tctagaggat tcaagcttac 410

<210> 5744

<211> 187

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F4

<400> 5744

gggtcgaccg ggataggtaa ttcaagtcag cggaaagcaa caatcatcag gcaaaccatgg 60

acatatgact gttcacaaaa taaagttgta caaaactaaa aaaacattcg ggtgctcgac 120  
atgatccaat cttatctatg cttgcatgca acattagctc gcttccacag tgtcacacat 180  
gataatt 187

<210> 5745  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-033-Q1-E1-F6  
<400> 5745

attcgcgggg cgacgggttc ttattgttga aaataggaat tatgtgccc tagacttcgt 60  
tgttctcgat atagattgca atcatacttg tcctattatt cttggtaggc cttcccttag 120  
aacgattggg gcaattattg atactaaaga aggaaatatt agattccaat ttccattaag 180  
gaagggcatg gaacactttc ctaggaagaa attaaattac cttatgaatc tattatgaga 240  
gccacttatg gattgcatac caaagatgat aatacctaga tctactcttg tttttatgcc 300  
tagctagggg cgtaaaca tagcgcttgt tgggaggcag cccaatttta tttttgcttc 360  
ttgttttttg tttccctttt agtaataaat aatcatcta tcctctgtta tgattgtgtt 420  
tcttatgttt ta 432

<210> 5746  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-033-Q1-E1-G10  
<400> 5746

gggtcgacgg cgtcaaggca aagatccacg acaaggaagg tatccagccg gaccagcagc 60  
gcctcatctt cgcggggaag cagctcgacg atggccgcac cctgaccgac tacagcatcc 120  
acaaggagtc cacgatccac ctgcgcgtgc gcctcgtcgg cggtggcaag ggcgggttct 180  
acccaccag gatggagcct aacctgcgca tgctcgcgt caagtacagg cagcacaggc 240  
ttgtgtgccg caagtgtat gcacgcctgc ccctcaggtc tgccaactgc cgcaagaaga 300  
agtgcggcca cagcaatgac atcaggccca aggagaagct gcgccccac tgaagcgttg 360

gaaacataac taggtgacat gcgatagctg gattaactgg gaattcaaag ttcgggttcga 420  
gtcttaattt cagttaaatg 440

<210> 5747  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-033-Q1-E1-G12  
  
<400> 5747

attcgcgggg cgacgggcaa ggaggatcac cttatatatta cccattgtat gggttgggtg 60  
agctgccaca ggcttttgca cgtctaagtg ctgtttatgg tggcacttat atgttaaata 120  
agccagagtg caaggttgaa tttgatatgg aggggaaagt gtgtggtggt acgtcagaaa 180  
gtgaaactgc taagtgaag aagggtgtct gtgatccttc ttacttggcc aacaaggtaa 240  
ggaagattgg aaaagttgca cgagcaattg ctattatgag ccaccaatt ccaaagcaa 300  
atgattccca ctcgattcag attatatttac cacaaaagca acttgggcgc aagtcagaca 360  
tgtatgtctt ctgttgctcg tacactcaca atgtcgcgcc aaaaggggaag ttcattgcat 420  
ttgtgtctgc tgaagcaga 439

<210> 5748  
<211> 196  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-033-Q1-E1-H7  
  
<400> 5748

attcgcgcgg tcgacgcagc tcacataaat cggcgggcgc tctgagaggg attccaagct 60  
tacgtttacg cgttgcatga cgaacgttca tgagctccct tctgatagtg tcnnacctaa 120  
attcgaattc acntnnggcc gtcagtttta canacgtctg ctgactgagg aaaaannccc 180  
tggcggtttt acccaa 196

<210> 5749  
<211> 440  
<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-034-Q1-E1-A10

<400>      5749

attcccaggt cgacgggtcg gctgcatgca tggctctggcc tccatccacg tctgatctgg    60  
ccgatgcggc ctgctcgctg cgcgacggcg gagatcgatg gcagtcccgt gcacacgatg    120  
ctggatggag gttcgtcgag cagatccggg tgaaaacctt gctctgggct agttgccaaag    180  
gccggcaatg gaaacgtctt tttgtgtcgc ccccttcttg aaggcatcga catggagaag    240  
ctccaaacct ctatccgcta cctccaggga aaaccctaca ccagtcgatt ggatgatgtc    300  
ggcgtctctg tgtcgtcctc cctgggggca tcattcttgg aggtgtgcat tggctcgagg    360  
gaccagtgga cggtttcaat ggtgaagcag catttcatgt gacacatcaa cgacgtggag    420  
tcttggcggc atggtgctgc    440

<210>      5750

<211>      421

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-034-Q1-E1-A4

<400>      5750

aattccaggg tcgacggggc aggaacattg ataaactttt ggttgatggt gattctctta    60  
aacttagatc ttctcctcct aagcatgata tcaataagtc tctcaaagta atgggaattt    120  
ccattgatga gtgtaaggaa agaaccgcta gattgctgct taaaaaagat agctttataa    180  
aagcgtgttc ttctagtttc catgaaaata atgattagga tcttaaagtt attgatgcgt    240  
ctcttattag atctatgttt tgcaatatga attttgatga ttatgggact gatgatgaat    300  
caactttgcc tataaggcgt cccaagaatt cggagtcttt agattttgat gcgaaatttg    360  
gtaaaagtga gattggagaa gtcacaactt taaataatat tgaaccact agctcggaat    420  
t    421

<210>      5751

<211>      431

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB104-034-Q1-E1-A6

<400> 5751

tacgggtccag aattcccggg tcgacgggat catccatgct gtacacacct tttgagagag 60  
actcacacaa ttgggaattt attagaatac tctatgtgct tcacttatat cttttgagtt 120  
atatagtttt tgctctagtg cttcacttat atctttttaga gcatggtggt ggttttgttt 180  
tatagaaact attgttctct catgcttcgc ttatattatt ttgagagtct tttagaacaa 240  
catggcaata ataaaaactt tcatacaagt gcattgaata ctatgagaag tttgatactt 300  
gataattgtt ttgagatatg gagatggtaa tatcagagtc atgctagtgt agtagttgtg 360  
aatttgagaa atacttgtgt taaagtttgt gattcccgta gcatgcacgt atggtgaacc 420  
gttatgtgat g 431

<210> 5752

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-A7

<400> 5752

cgggtatcag caactccggc aagttctgca gggccacaag aggccgatgg tgatggcgac 60  
gtgatcagcc aaccagcagc ttgctggatc cttctctctg gatgcctaaa atcagtatgt 120  
ccatgtaatg taaacatccc tttccctttc cctttcttc atgtagcttc ggtctactcc 180  
ttagtagtcc tggtaaaagc ttgtgctctg tagttgcttc agctactggt accctatgat 240  
gtgtgtggtg taatatatta tggatcattg tggcattcct ttttcaatca atctgcctgt 300  
tgccgcgagt ctgaagatga tcgctgtgtt tgttctctca aatcctgacg aacttgattg 360  
ctgaaaaaaa aaaaataaaa aaaaaaaaaa aagcggccgc tctaaaggat ccaagct 417

<210> 5753

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-A9

<400> 5753

taccggtcca gaattcccgg gtcgacggga taaaatagcg gtagatcgat agatgcaa 60  
 aacgacaaat aaaactcagc gaggtat tttt ttgggttttt gataatatag atctgaaaat 120  
 aaaagatgca aataaagaaa aaggcaaata gcaatataga tctgcaaata tatgatggga 180  
 aaatagaccc gggagccgta gatttcacta gtggcttctc tcaagaaata gcatatgatg 240  
 ggtaaacata ttactgttgg gcaattgata aaacatcgag taattatgcc gatatccaga 300  
 caatgatcat tatataggca tcatgttcaa gattagtaga ctgactcctg cctgcatcta 360  
 ctactattac tccacacatc gaccgctatc cagcatgcat ctagtgtatt aagttcatgg 420  
 aaaacataat aatgcaataa gaatgatgac a 451

<210> 5754  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-034-Q1-E1-B12  
 <400> 5754

attcncaggt cgacgggtgc tcaaagatgt tgataagctc atcaggagga accgcaggaa 60  
 cgacctcttg gtcgctggtg ctggcttaag ttttggaggg attgtcatgt catat ttggc 120  
 tcgactcacc agtcgaagtg atgactggct caccaagtga aatgatgaat gtaaatctat 180  
 cctgcactgc aagt ttaact gtctatcctg cactgcatct ttaactggcc agttgtatga 240  
 ttcttggtt gtcttgtgtg agagcactct atatatgatg aggggttctat gttcgggtgga 300  
 atctacttgt gatgagaatt taagttctgt gatggcatgt gagatgtaag agcactcata 360  
 tat tttatgtg gatcctatat ataaccgggt gatttatcta ttgtgttctg c 411

<210> 5755  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-B2  
 <400> 5755

attccagggt cgacctccgc ggacgaggtg cagcgcata tggcagagat cgacaccgac 60  
 ggtgacggct tcatcgactt cagcgagttc atctccttct gcaacgccaa cccggggctc 120

atgaaggacg tcgccaaggt cttctgaatc agttcatttc acctcagccg tccgttccag 180  
gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc 240  
ccgatccagc ctacagttca cctgaggccg gccctaaatt tgtttgatca attcttttgc 300  
tactagtagt aactagtgat gatcactgtt gcatcattta tttatttatt ttatatatca 360  
tcacaagttt cctgtgattc ttttctttct ataccttttt gtcgatcgtc ggctccagct 420

<210> 5756  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-B5  
<400> 5756

ggatcaagaat tcccgggtcg acctccgctg acgaggtgca gcgcgatgatg gcggagatcg 60  
acaccgatgg tgacggcttc atcgacttca gcgagtcatc ctcccttctgc aacgcccaacc 120  
cgggggtcat gaaggacgtc gccaaagtct tctgaatcag ttcatttcac ctacgccgctc 180  
cgatccagga gccgatccat ctacgtacgg ctctgtatat caatttcatg caactaccta 240  
ctccgggtccc gatccagcct cagcttcacc tgaggccggc cctaattttg tttgatcaat 300  
ttttttgcta ctagtagtaa ctagtgatga tcaactgttc accatttatt tattttatat 360  
cgtcacaact ttccagtgtt tcttttcttt ctctaccttt ttgtcgatcg tccgctccag 420  
ctcga 425

<210> 5757  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-B6  
<400> 5757

ccgggtcgac gggacagtca aaaacatgca ttaagattaa ccaacaatta gtgcaagcat 60  
gagtaggata taaatcacca agaataataa tatcgatgaag gctatgttga ttttgtttca 120  
actacatgcy tgaacatgtg ccaagtcaag ccacttgaat cattgaaagg aggataccac 180  
cctatcatat cacatcacia ccatttttaat agcatgttgg cacgcaagat aaaccattat 240



aagctcctag ctaattaagc atggcatgag caactataat ctctaattgt cattgtaaat 300  
atgttttcat ccgtaataag ttgaatcagg aacaatgaac taatcatttt tacaaaaaca 360  
agataggctg agttcatacc agcttctctc atcttaatca tttcatcata tatcgtc 417

<210> 5758  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-C10  
<400> 5758

attcccaggt cgacggggcg gcggggcgcg ctagggttgg gccgcgggtg gctggcttcg 60  
gctgggcctc cccccggctt ataaagccta gtggggccggg agtccgagtc ggacacgacc 120  
cctaggtcgg ttagtTTTTT tttaaattat tccgctcgga agaaaaataa aaagaaatac 180  
taaacggact ccaaaaattc cgaaataaat tttcacgggc ttctaaaatc aagccgcaca 240  
aggtgaacat ttatttggga cctaaatgca atttcgaaaa acgcacattt ttcctaaatt 300  
caaataaaac accaaaaaaa tcttatttga tttttattat taaatcctca atatttcttt 360  
atTTTgggaa agtcatttta ttccctctct catatttttg taatagaaat aattgatgat 420  
aaaataaata aaatgaaatg attctattct caaaa 455

<210> 5759  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-C5  
<400> 5759

ggtcaaagat tcccgggtcg acgggaaccc gaaagtgtac gcgagcctcc ttggggttct 60  
gtggtcttcc gtggcaaaca ggtggcacct ggagatgcca gacattatag atggctcgat 120  
ttcgatcatg tcaaggaccg gccttgggat cggaatgttt aacacgggcc tgttcatagg 180  
tctacaggac aagctcgctg tgtgccggcc tggacttacg gcgttgggca tggcgatgag 240  
gttcgctcgt gtcccggcag ccaccgcggt cggagcgcta cttttgggac tgcgtggtga 300  
ccttttgcgt gttgccatct tacaggctgc actgcctcag tctgtcggag catttatctt 360

cgcgctagag tatgacctgc acgctgatgt actcagtacc gtggaatag tcggcacgct 420  
ggcttcgctg c 431

<210> 5760  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-C6  
  
<400> 5760

aacgggtcaac aattccccggg tcgacggggt atcttagtat gctaagggtg ttataaatta 60  
ctatgatgtt caacaaattg aggaatttgt tgcttttaag ggtgcttatg aaattgcttc 120  
tttgattgaa aagtatgatg ctactcttta caagtatgaa aattttgcca tagttaaata 180  
ttgctatgat aattatgctt ctaatgccta tggttaaact tatatcaagg tctactccgc 240  
tgtccaagaa gagactaata ttttgcagga gtctatgcaa gaagaaattg atgagactgt 300  
gagctcattg gatgaaaaag atgatgagga gagcaaagaa cagaaggagg aagagcggat 360  
tagctacccg tgcccaactt ctaatgagag taactcttca actcatacat tgtttaataa 420  
cccttcgtgc ttatcgaagg attaatgcca 450

<210> 5761  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-C7  
  
<400> 5761

gggtcgacgg ggaggagcga gcagccgcga cgagtgcgcc tgctaccgcg acatgctcac 60  
cgccggggccc aggaagaggc ccaagtgcc gtgatectcg tcggtcgacc gtctgaacgg 120  
accacgggct tcaaccccca tctaccgag taccgacaag agtaatggct gtgtgatatt 180  
ggacgcgcgt gcttatgtaa ctccctgtg ctgtgtgctc gtgctaaata ttggtatgat 240  
acgtagacgt actctactag ctgggaccc ctgagttagtg agtttgctgc ctgtaaatta 300  
acaagtgtgt gtgtggctac ctgtgtactc ccatgtgggt gtagcacgta ctgtagtag 360  
ctgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaagcggccg c 401

<210> 5762  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-C8  
  
 <400> 5762

taccggtcaa gaattcccgg gtcgacgggg atccggaaga cggaggcgaa cgaggaggcg 60  
 aagctgagct cgttccagca ggagatcgtg cagctggcgg cggtgctgaa cggcgaccac 120  
 cagctaagca gcctgcagga gaggatcagg gagaggatga acgtgagga aggcacctcc 180  
 tacatgagga ggcgcgtgcg gcgcttcttc gaggccggca tgcggccaa gaggatgggc 240  
 ctgcgcgacg acgagcagat cgtcaagatg aggcctctcc ttaccaccag aatgacctcc 300  
 tcccctgcag atcaagatga tagtccgtag agagcaacga tgcatacata cataggatga 360  
 agattgatgt tggaattacc aaaattctta gtactacaca tacatata 408

<210> 5763  
 <211> 202  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-D1  
  
 <400> 5763

cgggtcgttt caatttgaca aataaaaaaa aaaaaaaac atcaaaataa agaaaaaaca 60  
 caaaaaaaa gaaaaaaat aaaaaatggg aaataagaaa aaaataaaaa aaaaaaaa 120  
 ggggccagct caaaaggatc caatcttact taccctgaa agcaatgtca tagcccttca 180  
 atagggtcac caaaattcaa tt 202

<210> 5764  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-D10  
  
 <400> 5764

ttccagggtcg acgggtgtta cttgcatgtt ttcaattata attgtccgtt attattattg 60

tttcgtctta agtgagttaa ccacatcaag tgttggtgcc tggacacaaa agagagagaa 120  
agagagagag agagagagag agagagagag agagagagag gccaacagaa acagagtggg 180  
gctctgatgg atacaacgct cgtggtataa aaaggtgcct ggtccaatta aaagagtgca 240  
tccttatgat tgtgtaaggt ttggccaatg gaaaatgaat gttttggtgt catcatgatg 300  
atacagccat acaagaacac catgaggggt gttacatgca cgtttccaat tacaattgca 360  
tggttcattat tatgttttac tctaaagtgt gctgaaccac ataaagcatt agcgccctaga 420  
tacacacaca agagatagat agatagagag ag 452

<210> 5765  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-034-Q1-E1-D11  
<400> 5765

attcncaggt cgacgggggtg ccaagtagaa cctataggat aagctatgat gatagttggt 60  
ttgattctgc tgaaaaacag agactttgcg ctacagagaa aatattcaat aaatcacaga 120  
aacgtgcttt tgcattgatt atttttgctg ctgatcaata aacaaatfff ccagtacttt 180  
atattttggt agaattttta gagttccata agtttgcggt agttacagat tgctacagac 240  
tgttctgttt ttgacagatt ctgtttttcg tgtgttgttt gcttatttca atgcatctat 300  
ggccaataaa ttagtttata aaccataagg aagttggaat acggtaggtt taacaccact 360  
ataaataaat aatgagttca ttacagtacc ttaaagtagt cctttgtttt ctttcactaa 420  
cggagctc 428

<210> 5766  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-D2  
<400> 5766

attccagggt cgacgggtct aatataagaa cacctaaaag ccaaagcttg gggatgcccc 60

agaaggcatc ccctctttcg tctacttcta tcggttaactt tacttggagc aatattttta 120  
 tttaccacat gatatgtgtt ttgcttggag cgtcttgat gatttgagtc tttgcttggt 180  
 agtttaccac aatcatcctt tctgtacaca ctttttgaga gagccataca tgatttggaa 240  
 tttttagaat actctatgtg ctctgcttat atcttttgag ttatataatt ttgctctagt 300  
 gcttcactta tatcttttag agcacggtgg tggatttggt ttataggaac tagtgatctc 360  
 tgatgcatca cttagattat ttgaaagcc ttaatagcat gggaattttc ttaaaatcct 420  
 aaata 425

<210> 5767  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-034-Q1-E1-D5  
 <400> 5767

ggtccaggat ctccgggtcg acgggaagcc ggagggcacg gtggggagca ccacctgcgc 60  
 catcgagtcc gactacttcg tggcgtacgg cgctcgtgttc aagaacgacg cgccactggc 120  
 caagccgggg gccaaagggcg ggcaggcggg ggcgctgcgt acgttcggca ccaagcaggc 180  
 cttctacaac tgcaccatcg acggcgggca ggacacgctg tacgaccaca aggggctgca 240  
 ctacttcaag gactgcgtga tcaaagggag cgtggacttc atcttcgggt ttgggaggtc 300  
 cttgtacgag aactgccgca tcgtgtccat cgtgaaggag atcgccgttc tcacggcgca 360  
 gcagcggacc aagaccatcg agggcgctat cgagagcggg ttctcattca agaactgcag 420  
 catcatgagc caaggcnggg ggg 443

<210> 5768  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-D6  
 <400> 5768

ttcccggggt cgacgggagc tccgtagcct cgctcctcgc gacgccgctg gacgggctgc 60  
 ccgccgcctc tggtcgcctc tggctgcact gcctagacgc ccgatgggaa ctcttcttct 120

ctgtcacgtc gctcttctag gtctgtattc ttctctgttt ctctgttaac atctacgtga 180  
 atagattgat ggatagatgc atgtattgat gaacaaatgg tactgctaata gcattgatgt 240  
 agttacggtc ttttaatagc aaactagccc ccctatgata ctgtgtatta tactttactg 300  
 ctatgggtggg tacacttttc ctgtccgtaa gatcgggttaa ttacgat 347

<210> 5769  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-D8  
 <400> 5769

gggccaggac tcccgggtcg acgggaatat gacaatgatg aaatgtgtca taataaacga 60  
 aacagtggaa agttgcatgg caatatatct cggaatggct atggaaatgc cataataggt 120  
 aggtatgggtg actgtcttga ggaaggtaaa taatgggttc aataccagcg aaagttgcac 180  
 ggtaataaga gaggcttgca aaatggaagg gtgagtgtgc gtatatccat ggactcacat 240  
 tagtcataaa gaactcatat acttattgca aaagtctact tagcccttga agcaaagtac 300  
 tacgatgcat gccccgagag ggatatatct gtaggaaaag accatcgctc gtccccgact 360  
 gccactcata aggaagacaa tcaaaagagc acctcatgga acaaatttgt cacacaactt 420  
 tta 423

<210> 5770  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-E5  
 <400> 5770

gtaccgggtcc tagaattccc gggtcgacgg gatcgatgaa gaacaaaaca acctcctctc 60  
 gactagatcg agcgacttgg gaggacagaa tcaagcgtgg ctacgaacac tggctcctca 120  
 tctcttgttt ttctccaaca tttcatagta ctcggttgat tgatatggca tccgtgaata 180  
 agtcttgaac aagctacacc tgaacagggg tttttataag ttcggcatca tggaattcct 240  
 tttgttctc atgcgaacct catttcatga aaggttcagt ctattttttt tcttctcttt 300

ttgtaagtgg aaacgaaaca tggaaataga acgatcacat gattctgcag tgtatactct 360  
 cgtgtgataa aactaaaaga gatggtaaga tggttttaga atgacttggt caatacttat 420  
 cacacattta gctaac 436

<210> 5771  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-E6  
 <400> 5771

gtaccggtcc agaattcccg ggtcgacggg tgaggcccg acatccaagc tgggtgaagg 60  
 ctcaacacca aagtgaagca ataatgctgc atcgctcata gctactggaa gtaaattata 120  
 tcgataattt aagcatcagt gctagtataa gatgtctact tatgcacggg atgatgccac 180  
 tatatgatgg ccagtgttga agtacgaggc ccctatatga tgccctactga tgaagtatga 240  
 aaataggcta atgtgtatct atctgtagcc tcctgatcta agggagcacc gtatgtgtaa 300  
 tctctgaatg agtagaagac tattatagcg tcaactttga aaaaaaaaaa aaaaaaaaaa 360  
 aaaaaaaaaa aagaaaaaaaa aaaagga 387

<210> 5772  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-F10  
 <400> 5772

attcccaggt cgacgggcca taattgggccc caaatacgta gcaggccggt aacgggtctta 60  
 aattgacgat gggctggaaa ctgtcaaata tagaattggc ctttgatggg ccaattctat 120  
 gtaacttgta tgggccatgc ttgtaaatgg gcctgactca agtaggccgc taatgggcag 180  
 gcccgcttat tttgatagtc ccggcctttt aacctgaatg ggccactggt gggctgagac 240  
 atgtgtcaac gtatcatagg cgtgttccgt ccattcgctg gatgacaact gtccgaacgc 300  
 cgagccgaca catggatctg ccggacaatg agaattttac acatggaaaa tccccattgg 360  
 tctacgctgt taacgggtta tcggatccaa accggaaccc gatagcttaa tggcgaccag 420

ttacggtgga tg

432

<210> 5773  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-F3  
  
<400> 5773

gtaccgctcc agaattccag ggtcgacggg cgtccttttt accccgtttc atccgttcgt 60  
taccggtctc atgtagtttt tgctttgttt ggtatgttcg ttgtcgggtcc ctcaaaaaa 120  
aacaatagtg agtgtacatg gatttgaacc atggttgcga ggactcatga accaactcat 180  
ccaaccaaag attctgcaga aagagaggga gcttaaaccg tctcgccata tacgtggcat 240  
tcatttacgt tttggaaaca tccatcatgt acgattcggt ttttcaaacc tcctccctat 300  
atgtatgttg tggaccacag ttgcgggcgt gttgcgcaa gggttggagc tccagcgga 360  
ggagcgggag atggggctac t 381

<210> 5774  
<211> 405  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-F6  
  
<400> 5774

ggtccagaat tcccgggtcg acggggagca caagaaggcg gaggagcaca agaagaagga 60  
cggggagcac aagaaggacg gcgagcaca ggagggcatg atggagaaga tcaaggacaa 120  
gatcagcggc gacggccacg gcgacggcaa gaaggacggc gaccacaagg agaagaagga 180  
caagaagaag aagaaggaca agaagcacgg cgagggccac aaggacgacg acggccacgg 240  
cagcagcagc agcgacagcg acagcgactg agccagctcc ggccgcgctc cggcagcagc 300  
gtgcagtgtg ggcgagatcg atgaacgctt gggagaagtg tggcatacat atatgttgca 360  
gggtttggag cgtgtggtag catatgtatg taatgcgtga catgt 405

<210> 5775  
<211> 420



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-F7  
 <400> 5775

taccggtcca gaattcccgg gtcgacgggg atgggtataa taaaaacttt catatatagt 60  
 acattgaata ctatgagaag ttgatactt gatgattggt ttgagatatg gagatgggtga 120  
 tattagagtc atgctagttg agtagttgtg aatttgagaa atacttgtgt taaagttttt 180  
 gattcccgta gcatccacgt atggtgaacc gttatgtgat gaagtcggag catgatttat 240  
 ttattaattg tcttccttat gagtggcggg cggggatgag cgatgggtatt ttcctaccaa 300  
 tctaccccc taggagcatg catgtagtac ttgtttcga taaataatag atttttgcaa 360  
 taagtatgtg agttctttat gactaatgtt gagtccatgg attatacaca ctctcacct 420

<210> 5776  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-034-Q1-E1-F9  
 <400> 5776

attcncaggt cgacgggggc aagagacgtc tcaatgttga gaggactaaa tatatgcaaa 60  
 agattgtttg tggatgctcg gggaaacctg agcagcagaa tagcagatct tgccgttgcg 120  
 agtgccttgc gatggtgagg ttactaagag ctgcagacaa tggatggtac attgctgagc 180  
 atcgggcaag ccacaatcat tcgctatctc ttacatgcgg ggaaaagggt cactggccat 240  
 cccacaaaca cacagatgtg tacacaaagg atctcgtgaa acagcttagg gaaaacaatc 300  
 tgaacctcaa caaggtgtat agcatagttg ggagcttctt cggattaaca cagagcgtgc 360  
 cttttacaaa aaggtcattg cgcaatctgt gcgggagaat aagcagagac caagttgatg 420  
 atgatg 426

<210> 5777  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-034-Q1-E1-G5

<400> 5777

ccggtccaga attccccgggt cgacggggat aggcagcggc gatacaagaa gcgcgacgac 60  
gacgacgatg atgagaggaa gccacggcac aagaagcacg acgatgatga cgacgacgat 120  
ggcgagagga agccgcggta caagaaacgt gacgacgacg atgatgatga ggatgacagg 180  
aagccgcggtt acaagaagcg tgacgacgac gacgacgatg atagaaagcc acgttacaag 240  
aagcacgacg acgatgacga cgacgacgat gagaggaagc agcgtcgcgg gaacaaccgc 300  
cgccgccatg attacgatga ctgatcaagg catcctgaca tgagtttagc tgacgctaaa 360  
taagtatatg cgcggcggct ttgcttcgat gaatcaccag ttcgtanttt tttt 414

<210> 5778  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-G6

<400> 5778

gggtccagaat tccccgggtcg acgggtgatc cgaatgatga ttgtgatatc aagattagga 60  
gggtgaatgt tagagctaatt cttgatattt gtattagcat gtttgagttt tgcagttagt 120  
caaatcaagt gtggtgttcg cccgacgaag gcttcagggtg agcgcgccaa ggaggtgaga 180  
tgccaggatg ccgtgtgagg cggcaagcac ggcgagatgc cgatgggtgct gcgtgagaag 240  
cggcaagacg tatcaaaggc tggagccgtg atggactgca tcaaattggg tcgggtgaac 300  
cggccgggtcg ttctgtttgt tggactagct gttcatgcgt gagttcgttt actcctagct 360  
gagagtatcg ttgctaataa ttgatgcatg c 391

<210> 5779  
<211> 457  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-G7

<400> 5779

taccgggtcca gaattccccg gtcgacgggc gctagttggg agataacca attttatttg 60

tgttttttgt ttttgtttct gtttagtaat aaattttgca tctaacttct gtttagatgt 120  
 gtttttatgt ttttaattagt gtttgtgcca agtagaacat ataggataac ctatgggtgat 180  
 agttaatttg attctactga aaaacagaaa ctttgcacgc acgaaattag ttttgttata 240  
 tcacataaac gtgcttttgc gttgattctt tttgctgctg atcaatagac aaattgtcca 300  
 ggacttacta ttttggtagg agtttttagag ttccaaaagt ttgcattagt tacagattgc 360  
 tacagactgt tctgtttttg acggattctg tttttcgtgt gttgtttgct tattttgatg 420  
 catctatggc tagtattaag tggatatgaac catagag 457

<210> 5780  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-G9  
 <400> 5780

cgggctttca gtttagagca gcaatttctg tacattttta ttgatattt cggttgattg 60  
 atcacacttg ctgatcaacg ccaatctgat ttgttctatg acctctgcat actttttacc 120  
 cctcagtaat tcaggccatt gtctcccatg taagaacgag atgcttacag taatgcccta 180  
 cagaaagtca gtgggacat aatcttgggtg ctcacgtgtt ggataaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaataaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaaaa aataaaaaaa 300  
 aaaaaaaaaa ataacacaaa aggttaaaaa ttaaattaa 339

<210> 5781  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-H5  
 <400> 5781

gtaccggtcc agaattcccg ggtcgacggg gaggatcaat tgctaggaaa atcacatcgc 60  
 tcactctacg accgccagcc atcactgacg cagcagacca gtgtaccgtc atgtatcccg 120  
 tttagtgcac acctctcgac atctctgcag tccaccggat tcaccatctc taacacacgc 180  
 atccgcttac cttcactcaa cagccatcaa gcaaggcggt taatatcata atctccacat 240

cccagccaat ctacctggtc gcacatttat cagaccatca tatcacattc tatgagacat 300  
tctatgagac caatcctcaa taccgacgat tctatgccta attctataat catatcagat 360  
cacacgccgt tcaagggttag tcttgtaatc agttgaatgc agtctccaag ac 412

<210> 5782  
<211> 465  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-H6  
  
<400> 5782

ggtcaaggat tcccgggtcg acgggttccc actcccaata atgggttgtg cttcaggtgt 60  
gaacaaccag ggcacgttcc taaggaatgc aaccagaacc agaatcaa at ggcccttcca 120  
gcaactggcc gtggaagcag tgggtggcagc ggcgtcgccg gtgcggggca gtggcggtag 180  
cggcggtgcg gggttcgaga cagggcggtc aggggttttat cccaggacgg gccggcggtc 240  
tataaagggt gagcctggag gagtccgggc ctagcacgac ccgtagggtc gttcagttct 300  
tttgaaatag ttacgtcag aaaaaaaaaa gactactaaa cggacttcaa aaatcctgaa 360  
ataaattttc cccggcttcc aaaatcaagc cgcattaggat gaacatttaa ttggggccca 420  
aatgcaattt tgaaaaacat gcaattttcc caaattccaa ttaaa 465

<210> 5783  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-034-Q1-E1-H7  
  
<400> 5783

gtaccgggtcc agaattcccg ggtcgacggg tcgtttccgt tcagcgcatt gcccttgaca 60  
tccatgtatt tttagaagtt catccaatcg tcattttgat cagcgatcac gtcatactgc 120  
atatcctcta tcgaggtaga tgcttggatg gacacaatca gttgatctcc gcaccttagc 180  
agattcaagc aacaagtgtg tattgccatc aaattgactt tggagagatg gcatgctcgt 240  
ttaggccacc cttccttctt ccaggaccaa acacgttctt agtagaaata aactctctgt 300  
tgttggggag cataattctg agacgattta tgactcttgc cagatagcac aacaccatca 360

gttgcccttac cctgtttcaa ctaccaattc ggtgaagcca ttgtaactca taatttc 417

<210> 5784  
 <211> 310  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-A1  
 <400> 5784

acgggtctaga attcncgggt cgacgggtga ttagagatga gaggttaaaa taattcataa 60  
 attcgcaaaa tactagattc acaccataat cttttttaaa aggaggcact ataccctcgc 120  
 ctactcatcg ccccgacgag catgccgagg agaccaggag gcacacatcc aagggagtgg 180  
 gtgtgggcta gggttcatct tctgatattg ccaatcgtgt ctaccgcccg gtgaatgcca 240  
 atcagacgtg cgcgacaaac cttacttggg cctgcagcca gacattttga ctgcagcacc 300  
 gatttcacgc 310

<210> 5785  
 <211> 299  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-A10  
 <400> 5785

ggtcctgaaa ctcccggtc gacggagtcc tagagctagg gatggatctc gaggttctgg 60  
 ccggcgggag atccaggttc tggccggcgg actgacgttc cgcgcggtgg atcgcgacga 120  
 gcggactgag aaccgggtac tgaattgtca tgatttcaaa tttcggaagg gccttagctg 180  
 tcaaattgac ttgtctacaa ttccgcttcg cctgaagtca tctattaccg tccggaggga 240  
 gtactatcca atcacgtgat cacctaatat cattctttct ctagcggcgc actcaagcc 299

<210> 5786  
 <211> 171  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-A4

<400> 5786

actccctata gtgagtcgta gtacaccggc agacaggaat tgtccgatac aagcggctga 60  
gcatggaaat cccccgttgc tcggtgagat tcaagcgtgt gtcgtaggga aaatacaatc 120  
cgttcgcgct atctagactc tacaattgtg caggatccaa cgcttgggggt c 171

<210> 5787

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-A8

<400> 5787

gggtcgcggtt gtccgttacg actccctata gtgagtcgta tcatggccac gacggtgacg 60  
gcgactcggtt cctggccacg acggtgacgg cgactcgctc ctggccgcga cggcgacgct 120  
ggccggcagt cgtgacctga ccgtgacggc gaaccgctca tcctcctccg ctccgccaag 180  
aactgttaag agtgatttgg aggattcaag attctgtgaa gctcttttga catttaaagc 240  
tcagaactga ggttacattg tcataggttc aatatgacgc aaaatagggc taagtggaca 300  
gcaaggatat agaaagggtct cgtggaggta cttacagagt acaatctatc tcattaccgt 360  
ggtcaaaatg ggtggactac cgaaggatgg aatcaagttg tcaaggaact gaacagttta 420  
tatccagagg caagg 435

<210> 5788

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-B10

<400> 5788

ggtcacagaat tcccgggtcg acgggagcat cctgggcggg gtgaccgtca tctggttggt 60  
gttcgagggc atcggctacc acctcctcac ctctctctgc cacttgctcg tcattcttct 120  
caccgtcagc ttcgtctggt ccaacgctgc gtccttcac aacaggcttc ctccaaagtt 180  
ccctgaggtc attttatctg aaaccaatg cctgataata gctcatgttc tgaggaaaga 240  
aatcaatgag gctttcatca ccttgcaaag tgttgcttcc ggaaaagacc ttaaaacata 300

cctcaagtca attggagtcc tctggttcat ttctataatt gggggctgct tcagcttcct 360  
gactctgtct tacactatatt tctgatggc atacacgctc cccatgctct atgagaaata 420  
tgaagatgaa gtcgatgttg 440

<210> 5789  
<211> 115  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-B11  
<400> 5789

cgttttacat tgcaacaccc tatagtgagt cgtattaaga atgggtgtcg cacgatggta 60  
tccggtagga catcctcggc gtcttatgca acctccgctt cacgttcgct accgt 115

<210> 5790  
<211> 463  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-B12  
<400> 5790

ggtccagaat tcccgggtcg acgaggtcat caggcaaata ttttgatgtt cccctcgac 60  
gctgtctggc acccttcctt actaatttct ctgcagccat gaacttaaaa ctgaatggct 120  
tcaatatgtt caaaggcttc aagggtttt gcttgctggt caaacaggaa ctagcttcag 180  
gagagttaat gtgttactgt aagaattctg caaacaaatg cagactatga gaaccaaggg 240  
attcttccac ggacatgtac ctgtggcagc attaaagatg cgatggaagg gaagaggtca 300  
tatgcattct cagaagattt tgaagataaa tcagtttgaa gacattgacc tcatgttgcg 360  
aagacattca cttatgtgtt gagtgttggt tccagatttg tacgaatcaa tgaataagta 420  
caagtgagga atctaactat atgtgaagct taagtgaata tac 463

<210> 5791  
<211> 461  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-035-Q1-E1-B2

<400> 5791

gtacgggtca ggaattcnca ggtagacggg gcttagacgc gccgacgacg gcgactcggt 60  
cctggccacg acggtgacgg cgactcggtc ctggccacga cggtagacggc gactcggtcc 120  
tggccgacgac ggtagacgtg gccggcagtc gtgacctgac cgtgacggcg aaccggtcat 180  
cctcctccgc tccgccaaga actgttaaga gtgatttgga ggattcaaga ttctgtgaag 240  
ctcttttgac atttaaagct cagaactgaa gttacattgt cataggttca atatgacgca 300  
aaataggggt aagtggacag caaggtatga gaaaggtctc gtggaggtac ttacagagta 360  
caatctatct cattaccgtg gtcaaaatgg gtggactacc gaaggatgga atcaagttgt 420  
caaggaactg aacaatttat atccagagggc aaggtttacc a 461

<210> 5792

<211> 213

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-B4

<400> 5792

taccgggtca gaattcccag gtcgacgggt tcgagcacgg gcaactgcatg ctcaccagca 60  
agcatgaatt gcgcgagaca ggaggctagc atggatatct ccctttgctc tggtatcttc 120  
acgcgtgtgt caaagggaga ataccactca atcgcgctat ccagaccgtt tatttgtaca 180  
ggatccaacg cctggcatca gaccggccaa aac 213

<210> 5793

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-B5

<400> 5793

accggtcagg aattcccggg tcgacttcca ccaaagcgaa atccatcatc tcacgaaag 60  
acgggacacc tccgcctcga tcaagtggta tcagatttcc aggttgctcg gtgagatttt 120  
acagtttttc gtagttttag tcgaatctgt tcttcatacc tacagtccac gagaaagccg 180  
caaaaaaac ttagggtttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt 240



tttaggggttt tgctttgttg aatttgcggt tgcacgctcg tgtctagttg ctgggtcttag 300  
 agtctagtct tttagagttt cgagttcttg tcataagttg tcatgccgcc gccgcaccat 360  
 catcatcgtc gctaccatct atcaccaccg c 391

<210> 5794  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-B7  
 <400> 5794

cgcgggcaga taccggtcag gaattcccg gtcgacgggt gctccaatgg cgtcggggttc 60  
 gtcggggcgg ctgctccgc tacacttccg gcgacgaaac agggtcagac aagctcattg 120  
 tggagagggg aaacgaggag agcaagcggg gcggctggag atccccctac ggcagcgata 180  
 acgttcggcg gcgacggcgg tctgtggcgc tcccccgga gatcggtttt ttctaatacg 240  
 aggcgtgcgg cgagcggaag aatcgggaga aagggtgcgg cgttcctcgc ggagtcttgc 300  
 ccgtgtacgg tgtctctgag gagcatggga tcgaacatgg ggcagatca atctgggctc 360  
 cgctcggcct gttcgcgctg tgcgtccgtc cca 393

<210> 5795  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-B8  
 <400> 5795

accggtctag aattcccggt tcgacgggaa tgcttcaaca gtctgccata catgatatag 60  
 accgtagtct tttttttttg gcaaaaacaa tgtgtattca actgacattg agtgggtttc 120  
 tctocaagaa aactgacaat gagtggtttt gcgacataga gtactcaacg aagcagtaca 180  
 gagctccatg ggagggatgc ggcacgtgaa attttgttca ctacgagtga ctttgtatgg 240  
 ccggagcatg gtctagtttg tgcacaaagc tttgtacca gcgatttagt tactaagtct 300  
 agtaattcat tgaatcaaca ttgcttgga tccagggact taatgctgtg aactcgtttc 360  
 ttccaaatga atcaacgtgg cttttttatt tatatgat 398

<210> 5796  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-B9

<400> 5796

cggtccagaa ttcccgggtc gacgggcaaa aagaggcaaa tagagaaaga gagggaggat 60  
 agagagagag ggtgaataaa acggcaaggg tgaagtgggg gagaggaaaa cgagaggcaa 120  
 atggcaaata atgtaatgcg ggagataggg attgtgatgg gtacttggtg tgttgacttt 180  
 tgcgcagacc ccccggcaac cccgcaaaaa atcctcctgg caactccgga aactgcctt 240  
 gggattcccc caagaagaaa agaagattcc aaaaagttac cttagttatt cccaagtgtt 300  
 ttgaaaacca aggtatcaat ccagtaggag gctacgcgcy agtccctcgt acctacacaa 360  
 aaacaataac tcaatgcaac caactgctt aaggattgtc aatccc 406

<210> 5797  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-C11

<400> 5797

ggtctagaat tcccgggtcg acgggatctc cctctcatta cattatttgc catatgcctc 60  
 tcattttcct ctccccagc tcacccttgc cgtttttatc gccctctctt tcccgctcgt 120  
 ctccctcttt cgcttgctc ttgtatgctc gttgtcatgg ccagctcggc cttcatccct 180  
 tcgtctcccg acattgaagt ccttcacttc aagcatagac aaggagaaaa tttaaaagat 240  
 gcttggttta ggatgctaga atcttatcgt ggttgcaata tagaaggaga tttcaaaatt 300  
 ttacttcaca atttttacgt tgggctaacc atatccata gacaacttct tgattttgct 360  
 gccaaaggga gttttattga aattgatcct agcttcgctt atgaaattat aagggggata 420  
 gtaggagtag tccccctaca aaatgggtca accct 455

<210> 5798  
 <211> 480

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-C12  
 <400> 5798

```
ccggcaggta ccggtccaga actcccgggt cgacgggagg atcgactaca gcgagttcgt    60
ggcgatgatg aggaaagggg cccccgaggg ggccaacccc aagaaacggc gcgacgtcat    120
gctataggag acggcggggt ggtggaggaa gccgcgggcc gatcggcgac agaacagcaa    180
gcgatcgagc gcgcgtacga ggccgctcgc aacgacgacg acgatgggct cgtgtacatt    240
tttcacagaa ggggtcgagt agcaaagtgt catatatata ccgtgggatt gggaatcgaa    300
aatgttcgta cgctgtcggg cgctcatctt cttcttctct ggttctgctg gttcccttga    360
cttgtagta tgtatacatc agttgagtaa gttggcattt tttagcctga atttgtacac    420
ggtttcaggc ttggaaatgt acaggatatgt aacttgagtg aactaacgag tgtgtttttg    480
```

<210> 5799  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-C3  
 <400> 5799

```
taccggccaa gaattcncag gtgcacgggg gctcttgcca ctccatgttc cataatccat    60
caaatctttt acccaaaact tgaaaacttc acaacacaaa acttaacaaa aaatctcgtg    120
agctccgtta gcgaaagaaa acaaaacacc atttcaaggt aatgtaatga actcactatt    180
tatttatatt tgtgttaaac ctactgtatt ccaacttctc tatggtttat aaactatatt    240
actagccata gattcatgaa aataagcaaa caacacacga aaaacggaat ctgtcaaaaa    300
cagaacaatc tgtagtaatc tgtaactaac gcaaacttct ggaactccaa aaattcagcc    360
aaaataggac aacctagaaa atttgtttat tgatcagcag caattggaat anatatttta    420
tcacgttctg gttattttta acaattat                                     448
```

<210> 5800  
 <211> 455  
 <212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-035-Q1-E1-C4

<400>      5800

gtaccgcgtc agaattccag ggtcgacggg gtagcttttt cttgggattt gtttagtta 60  
aagtttagcca ttgcaacttc gtgtacttcg tttgtgtcca acgaccagac caagaccgct 120  
tctggatccc caccattatc aatacctcat atatatttgc aatattcaga ttgctttatc 180  
atattcttgc tcgttcttcg attgcttgca ggaatagacc ttcgtggtca ggctgaccgt 240  
gcttccggcg tcgtcagtaa cctcaggaga ttggtttagc gattgttaag gcgcaacgct 300  
atgcacgttt gtagtcggat tgtcaaagtc gtctccacca aatcgatatt tatcatctca 360  
tcgaaagatc gggacaccct cgctctatc aagtggatc agttttcagg ttgctcggtg 420  
agaattttaa gttttcgtag attagattta ttttc 455

<210>      5801

<211>      450

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-035-Q1-E1-C7

<400>      5801

cggtcaggaa ttcccggtc gacgggaatg gaccatctga tgaagcttct cacggcaatc 60  
aaactttaca ttccatagtg ccaactggcg ctgccaagca agaggagctg tctgctagga 120  
ccccgttggt tcttctagcg atgcagttac tgcataacct agagaagaat tcatttagga 180  
gagtactgcc ccgctttttc ccgctgttga ttgatctgat tcgctgagag catagctctg 240  
gagatgttca acacgcgctg tataaaatct tcaaatcatc aataggcccc atgatagaag 300  
tataatggca cattcctgtc ctgttaggcg cacgattttg tgtcaacatt ctgacatcct 360  
gaatgagccc ttcaagatcc tggagttcaa gtgcatatta ctagtccaga tatcaggcat 420  
aaagaggaaa atacattttt gcttacatcc 450

<210>      5802

<211>      397

<212>      DNA

<213>      Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-C8

<400> 5802

ccggtcagga attcccgggt cgacgggggc acgaccacg taccgccgac gaggcagtgg 60  
ggccccgcgg acccaaacac catcctccgc gtcttggtgcc accgcgacga cgaggccgcc 120  
aaccagttct tgaagcgcac gttccagctc gccaaagcggc ggtgatgtcg gccaaatgct 180  
cgaagaatga gtctaggtgc tactatactt ttttagtccc attactgcaa caacaacagt 240  
tgccggtacg tgggctgtat ctgtgccagc ccaagtgagc ggcctatgta atgcgttcag 300  
gtgtgagtgt gccttggtta atagccgttg ctaaagcgtg aggggtgagg atccatgtac 360  
tgccaagtgc caacttcctt aaaaaaatg tactatc 397

<210> 5803

<211> 433

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-035-Q1-E1-C9

<400> 5803

gggccagaat tcccgggtcg acgggtacta gaggcatca ctttggtaca taaagtttta 60  
caaaaatatt cgaaacgttt ataaactaca ctctgggttt aaaagataaa atacattcaa 120  
acttggaat catatgaaa aaaacatgag tgagtagaac atggcattga ctctgccaca 180  
aactagctat ggcaaaagct gtcagcattg atggaggaag tgcaaatgg ggacgcatat 240  
gcatgtgtaa ccaagtctcg aactagatga acggctgcac catgcatggg atatcccggtg 300  
catgcagtgg cggatccagg gccagggccc aggcctgggg cgcggagaag atttccttcg 360  
tgtgctatag cagtatgtgc actgtagctg tactgtagca gagggtanca gcctggggcc 420  
cggggctttg ccc 433

<210> 5804

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-D10

<400> 5804



aattccaggg tcgacgggtg gatcatcctc gtgagtcct catcataccg gaaggaaacc 60  
 aggaaagtca tggctcttggg tagacacgag cttgtcctta gtccctcatc gagacgagta 120  
 tgtccggtat ggcatggtga ggtttgatga gtggtgattt attccactag tggtaatat 180  
 gttggaggat acttggacca cctgactcgg tcgtangccg agtcttgatc agtaccttcc 240  
 ctatttgttg gtaccaccac ttgtccctgt cacagacagg gtatggttta gtaagttggt 300  
 aacccttac caaagcacac atcgtacaga gaggccatgg tggaagatac cggaggcctc 360  
 cggtaggcat gccacctggc ccgngggcat ggggtgtttcc gggt 404

<210> 5807  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-D5

<400> 5807

ccggtctaga attcccgggc cgacgggtac ccaaagctct gaccacctca ggcaggtggt 60  
 ttccactcag atgggtttga gtgaccagga cattgttgct ctttctggtg gtcacacct 120  
 gggaagatgc cacaaggaga ggtccggctt tgaggagacc tggactgcca accctttgat 180  
 cttcgacaac tcttacttca ctgagctcct ttgtggggag aaggaaggcc ttcttcagtt 240  
 gccgaccgac aagaccctcc tgactgacct ggccttccgc ccacttggtg acaaatatgc 300  
 tgcggatgag gatgctttct ttgctgacta cgctgaggca cacctcaagc tatccgaatt 360  
 gggatttggc gaggctgttg acggctgctg ctgattcaag ctcggcg 407

<210> 5808  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-D8

<400> 5808

accggtcagg aattcccggg ccgacggggg gacaagtggc ttattctgat gatgatgaaa 60  
 cgctggccaa acagcgtgag gaaataaagc gcatgactgc tgagtttgat gcgagcatgc 120  
 tggagatccg caagaatttg gatgctatgg atgaaattga gaggcggagt gcggaggact 180

atgagaagtt ccgtaagaag ctaaacaata ttgagaaagc atgcaatggt gctttgatcg 240  
 tgctgggtgcc tagcactgtt ctgcttttta tgtcactgta gtatcatctc tattagtgg 300  
 ttataagaaa cccttattta actagtgggt taagaaaccc taccttcaga actctatgtg 360  
 ttgtagtgat ccagctttgg actttgcatt gcactctcat gaacgcataa tggtagcag 420  
 actcggtata ag 432

<210> 5809  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-D9  
 <400> 5809

ggtctagaat tcccgggtcg acgggctgt cggcaatcca ggacgaggac ctccgacaag 60  
 aattctttcg catccagtcg gagtttgcgg aaatcatcca tcaagatgtc cttcgttcct 120  
 cggggcagtt ctacctcaga aatcaaccgt ccaacagtga catggacaca atgctacaaa 180  
 tgcaggctga caacgaccgt tatttcatga ctcccacgat agacggcggc ttcattccag 240  
 ctccggtccc ttgagtcgag tcgaaagtag tgatgctgtg tctagttctg aaacatcgat 300  
 tggctcatgt tgtaattaaa ctttaatgaa cttgtagtat gtctctttgg tttcgagagt 360  
 cgttcaactt agatgtaatc gatgctatta atgtcttgc tttctcttcc aatcattctg 420  
 ttgcatactt atatattgcc taagt 445

<210> 5810  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-E1  
 <400> 5810

taccggctca gaattencag gtcgacgggc cctttcatct tcaaggaaaa ccgacgcaag 60  
 ctcaagacgt agcaagaagg atttctggca ccattgtcgg ggaggtcttc gctcaagtca 120  
 agacattcca agtaccatc acaaactcat ctccctcgca ttacattat tttccatttg 180  
 cctctcggtt tctctcccc cacttcaccc ttgccgtttt attcgccctc tctttcccaa 240



tctcctcctc tcttttttgc ttgctttctt ccaacttgct tttgtttgct gttatgttgg 300  
aaattgggga aattatcgtc gatacgggca ataatgataa catggaaaat tctgaggctc 360  
cggctgaaga acccctatct tgcatactaa aaagtttcga atcggtagtg gtaacattat 420  
tggaaggat gttattcaag atttcattac ttgta 455

<210> 5811  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-E10  
<400> 5811

ggtccagaat tcccgggtcg acgagcggcg aggagcgcat catcatcttc accaccaact 60  
acaaggaccg cctcgaccg gcgctgctgc ggccggggcg catggacatg cacatctaca 120  
tgggccactg ctgctgggag gcgttcaaga cggtggccgt aaattatcac ctgctggacg 180  
accatgctct gttcccagag atacaggaac tgcttgccgc ggtggaggtg aaggtgacgc 240  
cggccgaggt gtccgagatg ctgctgcgga gcgaagacgc cgacgttgcg ctacgggtgc 300  
tgacggagtt cctccaggac aagagaagca aggcaagaaa agaggcaaca gaaatcaaga 360  
tcggcgtagc agagaaggca atgtagcagt agtagtagta ttcagtgtca gtatcccctt 420  
caacgggacc gttttattgg aggag 445

<210> 5812  
<211> 465  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-035-Q1-E1-E11  
<400> 5812

ggtccagaat tcccgggtcg acggggaagg tggaggaaac agcggagtca gccatgggga 60  
gggggagggt ggagctgaag cggatcgaga acaagatcaa ccgccaggtc accttcgcca 120  
agcgcaggaa cggcctgctc aagaaggcct acgagctctc cgtgctgtgc gacgccgagg 180  
tcgcgctcat cgtcttctcc aaccgeggca agctctacga gttctgcagc acccagagca 240

tgacgaagac actcgacaag tatcaaaaat gcagttatgc aggacctgaa actactgtgc 300  
agaaccgaga aaatgagcaa ctgaaaaaca gccgcaatga gtacctgaaa ctaaaggcac 360  
gggttgataa ttacagcga acacaaagga atttgcttgg tgaagatctt gattcattan 420  
gcataaaaga gctcgagagc cttgagaagc aactccaatc aacct 465

<210> 5813  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-E12  
<400> 5813

ggtccagaac tcccgggtcg acggggagca caaaaaggcg gaggagcaca agaagaagga 60  
cggggagcac aagaaggacg gcgagcacia ggagggcatg atggagaaga tcaaggacaa 120  
gatcagcggc gacggccacg gcgacggcaa gaaggacggc gaccacaagg agaagaagga 180  
caagaagaag aagaaggacg agaagcacgg cgagggccac aaggacgacg acggccacgg 240  
cagcagcagc agcgacagcg acagcgactg agccagctcc ggccgcgctc cggcagcagc 300  
gtgcagtgtg ggccgggatcg atgaacgctt gggagaagtg tggcatacat atatgttgca 360  
gggtttggag cgtgtggtag catatgtatg taatgcgtga catgtctcat ggatcctgtg 420  
atgtataata attaccggcg tgcactgcac tgca 454

<210> 5814  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-E2  
<400> 5814

aattccaggg tcgacgggtc catcgccgct gaggtcggcg gcgtggagat cgggcagggg 60  
ttatatacca aggtgaagca gatgacggcg ttcgggctgg ctgagctctg ctccgacgcc 120  
gacgagctcc tcgacaaggt gcgtgtcatc caggccgaca cgctgagcat gatccagggc 180  
ggcttcaccg gcgggagcac cacctccgag accagctgcg aggcgggtccg gctgtcgtgc 240  
gccacgcttg tggagcggct caagcccacg aaggagagca tcgagtccaa gtccggcgcc 300

cctgcgccat ggaaggcctt gattaccag gcgaccatgg cgagcgtgaa cctgtcggcg 360  
cagggctact ggacgcctga cccagccttc gtgaagtaca tcaactacgg acccgccgtc 420  
agcgaggtgg aaatcgacgt gctgaccgg 449

<210> 5815  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-E5  
<400> 5815

cggtctagaa ttcccggggc gacgggaaag aaagataaaa ctttactgga agctcctaca 60  
ttcaacacat tctgggaaaa ggatgttgca gagtctgtgc gccagggaga tgccgagcca 120  
tttgtcgagg aagctgtgct gcaagtatct gattgggggtt tcagcttgtc agatattcaa 180  
atgcagaaga aagaggatca gggagtatct gaatttatga agtctctgtt cagtcaggct 240  
gaacgagagt ggggggggatt tctgggcca atccacattt ggcaggggaat ggatgaccgg 300  
gtggtgcccc cgtcggtgac cgagtttgcc aggaggatgg ttccaggagc cactgtccac 360  
aagcttctcg acgaaggcca cttctcatac 390

<210> 5816  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-E6  
<400> 5816

ccggtcagga cttcccgggt cgacgggcgt atgattaaag ttgtgtcaca aatttgaaac 60  
atgaagtgtg cctggccttg gcatccttat gagtggcggc cggggacgag cgatggtatt 120  
ttcctaccat tctatcccc taggagcatg cgcgtagtac ttgatttttg atgacttcta 180  
aagttttgca ataagtatat gagttctttt gactaatgtt gagtccatgg attatacaca 240  
cttttacctt tccgcctttg ctagecctta cggtagcgtg catttccctt tctcaccttg 300  
agagttgggt caagcttcgc cgggtgcatcc aaacccccgt gatacgatac gctctatcac 360  
acataaacct ccttatatct tctcaaaac agccaacagt acctacctat ccatggcatt 420

ttccatagcc attccgagat atattgccat gc

452

<210> 5817

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-E8

<400> 5817

cggtctagaa ttcccgggcc gacaggaacc agtgcagaca taagcacatc agttcttggt 60

caataatgct gctgcaacaa tctcatcgat cttacaaaaa actagcaaaa gggctctgtgt 120

gttacaacag cagaaaaaaaa atcataatct ccaaaggcca tagcaacatt ttgctgcaac 180

accgataaca ttttcacgaa cattctgttc aattttatta acattttaat acacaaactt 240

ttaaaaaaaa tcatgaacat ggtttgattt ttcaaacatt tgttttcaaa tttgcaaaca 300

ttttcttgat atggaagatt ttttataaaa ttataaacat ttttttaacc cacaaacatt 360

ttatgattta ttgagcattt tacttaaaaa ttctcctttt aaattatttg aagttacaaa 420

tttattaaag gagg 434

<210> 5818

<211> 462

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-035-Q1-E1-E9

<400> 5818

ggtccagaat tcccgggtcg acgggatgct ttatgttttc gtttctgttt agtaataaat 60

ttttcatcta ctttctgttt agatgtgttt ttatgtttta attagtgttt gtgccaagta 120

gaacctatag gataacctat ggtgatagtt aatttgattc tgctgaaaaa cagaaacttt 180

ggcgacgaa attagttttt ttaaatcaca tatacctgat tttgtgttga ttctttttgc 240

tgctgatcaa tagacaaagt ttccaggact tcctattttg gtaggatttt tagagttcca 300

gaagtttgcg ttagttacag attgctacag actaatctgt ttttgacaga ttctgttttt 360

cgtgtgttgt ttgcttattt tgatgcatct atggctatta ttaagtggta tgaaccatan 420

agaacttggga atacagtagg tttagcacca aaattaatta ag 462

<210> 5819  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-F2

<400> 5819

aattccaggg tcgacgggcg atgttgctgt tgaccatata tggacgcgtt cacaagttac 60  
 ggcaccagtt tcacgtacta gtagcactag tcaatgtgta cgtgcaatgc acgttaattt 120  
 ggaactatat taagtgcatt cagatattaa gtaggatatt atttgtgtgt tattatgtga 180  
 ttagcactat ttttggcatg aaattaacta cacgctaaac gtgttgagcg ctgcacattg 240  
 aatcagtcta ggtcattgga tgagaaggaa tacatgcggc ttgatgacgt tttatattta 300  
 atttgatatg gatctagcag aacattcaat catcacacca tagatttcat tcagtctgac 360  
 tccgacttta cattcatacg atgatcga 388

<210> 5820  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-F4

<400> 5820

tcgacggggtc ccacaatcat ccatgctgta cacacctttt gggataagcc tacttgatta 60  
 ggatttatta gaatatgcta tgagcttcac ttatatcttt tgagcttgat agtttttgct 120  
 ctagtgcttc acttatatct tttagagcac ggcgggtggc taattttgta gaaattgcta 180  
 gtctctcatt cttcacttat attattttga gagtctttta gaacggcatg gtatttgcta 240  
 tggttataaa attggtccta gaatggtagg catccaagtt gggataata aaaactatca 300  
 taggaagtga attggatgct atgatcaact tgatacttga taattgtttt gagatatgga 360  
 ggtagtgata ttaaagtcac gccagttggg ttgatatgaa tttaaagaat gcttgtgttg 420  
 aagttagcaa gtcccgtag 439

<210> 5821  
 <211> 449

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-F5  
 <400> 5821

accggtcagg aattccccggg ccgacggggg agaagaaggt gctgcaagca gagaaatggg 60  
 gcctaaacac gaggggaacgc aactgaaag tcagagagat gaacgaccgc ttgaccgctt 120  
 gatgatggca gagcgagcct tcaccaacag agaagggctc gcagggagac cgtggtacaa 180  
 acacatgatt tatgcgtcgt cggaccagga cgactggggc accaaggcgt tccccggcat 240  
 cgtctcggcc atggccaacg cacagaagct caacacgtcg gagtcttggc ggctgttgca 300  
 gcatgagatt tacaggggtg caagggccgt gtccaaggcc tctgcagtcc tggatggaag 360  
 gctaacatga tgccggagta gacatcagca cagcacanca cagcacggaa tttaccggtg 420  
 caaataagta gggaaaggga aaaagaatc 449

<210> 5822  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-F6  
 <400> 5822

ggtcaggaat tccccgggccc acgggatggc catccatgtg acctcggaga tgggctagct 60  
 cgccaataat cagcgaagta gctagtcccc gaagacaacc acttcatgtg tgtggcccaa 120  
 acatatgtat ggagagggtgt gtttttgagt aacaatggaa caactttgat gtggcaccat 180  
 gatttcaaac tagaaatccc cacactgagt gaggggttagg ttgacgatgc atatgtatgt 240  
 tacaccacac ttcaagccag tgacgggggat tcatgcatgc atgcgtgcat agtatatacg 300  
 gtcaaactta aggtttgaat ctcaccgtga cctatactac gataacacga accaaatgaa 360  
 gaatccgcca tggttaccta tcttggtg 388

<210> 5823  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-F9

<400> 5823

ggtcagaat tccccgggtcg acggaagcg gcagtcgac ttagggcact gacgatggag 60  
gacctgagggc aggccaaaaa tcaggtcgcc gcgagcttcg ccgaggagg cgctgtcatg 120  
aacgagctga agcagtggaa cgacctctac ggcgaaggag ggtcgaggaa taaggagcag 180  
ctgacctact tttttagtaa ccggaaggat ggtggatgtg tcgtgttggg caaatcgctg 240  
aagccttggc agagcatgag catacatatg ttgggtggaa aaggagagag gatttcctgt 300  
gagcaaccgt gagttaggat cttggagtga atggactcct tgagatgtgt ggcagggggc 360  
attggatcat gtacgattct tttatacgaa caagtattgt agttattcat tattatata 420  
gttgtagctg gtttg 435

<210> 5824

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-G10

<400> 5824

ggtcagaat tccccgggtcg acggggacgg cggagaggaa gggcaggacg gcggaagaga 60  
gggggagcag gctgaggaac aagtgaagcg tagtaacttg caaggagctt agaattgatg 120  
gccatggatg aactcccgag gagcgtgcat ggccaacttc ttgcttccga tcccttccca 180  
atgtgttggc atgcatacct gtggttcttg atcatttttc ttactcgtat tggtttcagt 240  
gcatccatt ttttgggtggg agatgtgggg tgggcgtcat ggttgagaga ggggtacatt 300  
tttgtaatta aattaatgga tggaggaata ataatcaagt ggctataatc atatacaatc 360  
tatgggtatc tcactaatca c 381

<210> 5825

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-G6

<400> 5825

ccggtcagga cttcccgggc cgacgagggt tgtcaacatt gagacgtgtg actgcacctg 60  
tcgaaagtgg aatatttctg ggttgccatg catgcatgca attgcagtat ttgagcgcac 120  
tgaggaggtat gcatatgact tctgtgtgga gtatttcacg acgaaacggt accgctcgac 180  
ctattcaatg tccataaatc cgatacctga tgttacctta acggacaatt ctcagagtcc 240  
agcgacatta ccattcccaa ttcaaactcg tcgacggggtt ggcaggccga aagagaaacc 300  
agctgatccg cgcatacaaa ttaaaagggc agtgcgctgc agcagatgta aaggttatgg 360  
tcacaacaaa gcaacttgca aaattcctat cagtggcgaa gccttgcccg ccttgccacc 420  
agctgacctc tccgatgtac ac 442

<210> 5826  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-035-Q1-E1-G8  
<400> 5826

ccggggccga caggccgaga ggggaaagga cacatattat gggtacatag tggacatatg 60  
agaacttgac tacggacatg attttaaggt ccctttgttt aagtgcaa at ggggtcaatct 120  
gtcaggaggc ggggtacagg tagaccaca gtagggaatg acaacagtgg atctcaacaa 180  
tcttgcgat gcagacgaac cgttcgtcct agccaatgat gtggcacagg ttatctatgt 240  
gaaggacatg tctaccaa ac cgagaaaaag aaaagataag gaagcgaata catcatacga 300  
tgagccaaag cgccacatag ttctttcagg aaaaagggac atcgtgggag tggagggtcaa 360  
gacagacatg tctgaagatt atgaaaagtt tcatgaaatt cctcncttca aagtcaaggc 420  
tgaccaagc atcctgataa ac 442

<210> 5827  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-H11  
<400> 5827

gggtccagaat tcccgggtcg acggggtgac aagaggagtg taaccacttt ctttgaatca 60



tttgcctcgt ctctataatt gcccggtttta gttagtgaag aaaatcacct aaaaaaagtt 120  
 agtgaaaaaa aaacaagtga aaaccgtcac ggcaattcat agggcaacgc tggccgatct 180  
 gactacccgc gtaaagagat acacgttggtc aagaagagaa catcggtgtt tcgttgagat 240  
 tgtcatgaag tgctactgtc gtcacttctc cactgagcaa cggctccgac ttcaccattg 300  
 acaaccgtca acggaaccct tactgaaaca aacgagactt tgacaatgag ccttgcaaga 360  
 gaaaaatgga agaaatgccc aattttttat taagtttgat attttggtat tcaatatttt 420  
 tctgcttaca ttgtaccaca aaattgcac gtgtcaaaa 459

<210> 5828  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-H12  
  
 <400> 5828

tcgtattata ttataatanc ntatagtga tcgtattata cgttgagtc tttgcctcgt 60  
 ctctatactt gcccggtgta gccagtgtat accctcagct ctgcaaactt gatgtcgacc 120  
 ccacacctca cgaccctctc ggcatttcat agggcagctc tgttcgctct gactacgctc 180  
 gtacatacat cctgttggtc actaacagaa catcggtgtt gccctgagat totcatgaac 240  
 tgtcattgtc atcacttctc catgacgcaa cggctccgac ttcacgattg acaaccgtca 300  
 ctggatccct tactgacgga ctaccgactt ttgacactga cccttgc 347

<210> 5829  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-H5  
  
 <400> 5829

ggtcaggaat tcccggggccg acgggagagc ttagatagta gagttgggaa atccaaaacg 60  
 gtggatgttc ctgaaaagcc acgaatgagc tcagatgacg ttgacaagtt taggaggaga 120  
 agatgcttgg tttggtgatc tatgatatga cgtctgcaca gttcatggag tagtttccga 180

acaccatgga atggggatca agcaactgtg tcatactgta tagcgaggaa caacgccgac 240  
 agttccccga gtagagggat aatagctgtg ttaaattgtg gagaagaaga atgaggacgc 300  
 tgggtgaataa gctgttattt atcaaagagg gtacgtctca acatggtaac tttctcggtt 360  
 aattaacctg tattgcaacc cccagtggtg gtaggatttc atcatgtaaa 410

<210> 5830  
 <211> 330  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-A10

<400> 5830

ccctatagtg agtcgtatta gggactagac gtggtagatc ggactcagct ctccttcatt 60  
 ccgccaagga aaaatcccat ccgcgagcac ctccccatac gcacaagaaa gcgcacctcc 120  
 cttgtgtcat gcaggaggaa aagatcgctc tctctccgaa cccgtccccc tcaaggatga 180  
 tgcgctgcct acgagactga cgggcagaca ttctctttga aagaccgaca cgcgtcattg 240  
 ttgatcgagt tccccgtgc atcgtaaata gagatgccga aggagagcgc ctttaaggctg 300  
 gtctgggtcga gaggcaattg cgggaagagt 330

<210> 5831  
 <211> 244  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-A11

<400> 5831

tatagtgagt cgtattaaaa catacgactc acggaaggga gtcctcgtca cttgggtgac 60  
 tcacgctcgc gtctccgaag aaatcgaacg cagcacacg acgtcgcagg acggatttct 120  
 gggaccattg ccaggagggt cttcgtcaa gtcaagacag accaggtacc catcacatag 180  
 gccatctccc tcgcatttac aggagttgcc atttgctctc cggttgcctc acccccactt 240  
 cacc 244

<210> 5832  
 <211> 57  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-036-Q1-E1-A8

<400>       5832

tgagtcgtat taaaaaatac gactcactat agggagtcgt attaagtggc acgactc       57

<210>       5833

<211>       369

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-036-Q1-E1-B10

<400>       5833

tggtccaccc tatagtgagt cgtattaagg aactgaatat ctgggtgcagc cgcttggccg       60

tgctgaagac gaagagcatt ccagtgactt cgagccagaa gaagatgggtg atgggtgctga       120

ggacgaggag attgacgatg acgatgctga ggatgggtgag gatcctgtca aggcgcaatc       180

ctcatcaaag aggaagaggt ctgggtgggga ggatgaagat gatgaccaca gtgatgatga       240

tggtgatgat gatgagaagc ctgatcaaa gcgatagtca atttgttcgt gctgatctgt       300

gatcttctct gcttggggcca agaaggaaga taatcctcat ggagaggatt gttggtaaata       360

gctgtagct       369

<210>       5834

<211>       399

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-036-Q1-E1-B11

<400>       5834

accctatagt gagtcgtatt agctgcgtgg tgacaagtac agcactgatt gcctcagctt       60

gtacttatac ctggatgcat cggatgagct ccatctcgag tccaagatgg tggttgtgat       120

gactcgggtcc atcctggacg aagtgaatgg gaaacacttg actgcaactt caggtctctt       180

agtgtttacg ggtggatgag gctggggatg ggctgatttc cttggactca agaattctcaa       240

ggacccgtcg ggaggctatg ttgtgggatc gagctgcgtt gtgaaggccg atctcactat       300

cgttggttca tccaatgatg gttagatgtt tacctcatgg cctgatggag agataatgcc       360

cttacatcct acgtatgact agacttctat ttgagataa

399

<210> 5835

<211> 338

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-B12

<400> 5835

gtgagtcgta ttagatctca cgactcacgg aaagacgtag cctacacttt gctgcatcac 60

cctcgcccct tcgaggaaaa ccaacgcaag ctcaagacgt agcaagaaag atttctggca 120

gcattgccag agaggtcttc gcgcaagtca agacatagca ggtacccagc agaaacccat 180

ctccctcgca ttacattat ttgcgatttg cctcgcggtt tctcgcgcc cacttcagca 240

ttgccgtttt attgaagctc tctttccgaa tctccgcctc tcttttcgct tcccttcttt 300

tgtgtgctcg tttgcttggt tgaccttatg ggcgcgcc 338

<210> 5836

<211> 443

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-036-Q1-E1-B7

<400> 5836

ggtccagaat tcccgggtcg acattgtgca aagctgggga tttggatggg gcgttgagg 60

tgcataagaa gagtgggcag ttcaagcatg tcctgggtga tccgaggcag tacggtgtgt 120

tgatggagag cttgtgtgca ggtggtaagt gtgatggtgc tgtgcagggtg ctcgatgagc 180

ttctagagaa gggcacactg cttagcccaa agagtccagt gatggaagca ccggcttata 240

atccagtgat tgagtatttg tgcgacaatg ggaataccaa caaggccgag acgttcttca 300

ggcagctgat gaagaaaggt gtggatgaca agtctgcatt caacagtctt atccgtgggc 360

atgcaaagga aggtgcgcta naggccgcaa aggagattct tgccattatg acacgccgtg 420

gcgtccctac tgaccccaact cgc 443

<210> 5837

<211> 459

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-B8  
 <400> 5837

ggtccagaat tcccgggtcg acggggaaga tcgtatggat ctgatgagag ctgtgattat 60  
 tggagcaagt ggcacaccat atcaagatgg tctgttcttc tttgacttct atcttccacc 120  
 tgagtttcca cgagctcctc cgtcggcata ctatcattct ggcggcctgc gtgtaaatacc 180  
 aaacctttat gtggatggga aggtttgttt aagcctctta aatacttggga ctggcagagg 240  
 gaatgaagta tgggatccat cctcatctag cattctccaa gtactagttt cactccaggg 300  
 gctggttctc aatgaaaagc cctatttcaa tgaagctgga tatgagaagc aagtcggtac 360  
 tgttgaaggg gagaagaatg cactgccata caacgaaaac acatatctgc taagtgtgaa 420  
 atccatgttg tatatcttga ggcgacctcc tatgaattt 459

<210> 5838  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-C3  
 <400> 5838

attccagggg cgacgggggca atgaaacacc caatTTTTTT gtgcagttcc accaaaatcg 60  
 agcatccctg ttggcacata tattgagaga gtgagattac tgtaatagtg ggactacttg 120  
 atgaaacata cactaacaaa tagaagcacc gtcattatct taatgggtaa agtttagcaac 180  
 atagtagtct tgcttaaaga gaggtattag tttatttaat cagtgccaat tagctcaaca 240  
 ctcaaagcat taccatttat cataggttgc aaaactttaa tgtgcaaaga taaaggagtt 300  
 tctcatgaca gtagcacgat acaaataagag atgacaacaa actaatatgg atgaaggcct 360  
 taggcccgtg acaacgtgag aaaaaagct tattcatgta gtcccataag agatgataaa 420  
 gcactcactg gaatcacact atagtatata tttttgtgca c 461

<210> 5839  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-C7

<400> 5839

gatgggaaac cctaaagtga gtcgtattat tttataaaaa ttatagtatt attgaaacca 60  
aaattatata aaatttatgc aactaaaatt atcaaagtat tttctgttca aaacattaaa 120  
agaaaaaaga attttcataa agaaattttt tgtagaagac tttaatagca gaaagaatta 180  
tcataaagaa ttttctgtta gaaactaaaa taacaaaata tggttttgaa tataatgata 240  
aaacacagta atatttaata gcatgaaaaa agaactactc aaaaatctac ttttatagta 300  
aagctattca aaaactagtg actcacacaa atttccaaaa attcaaattt aaactattca 360  
aattagaaaa caaatggcac taacagaaag tttaaatttt ttagtacata aaagcaaaag 420  
gaatcactga aaaact 436

<210> 5840

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-D2

<400> 5840

cctatagtga gtcataatat gagcgagaca cctttgctaa aaaaaacaag cggcacatta 60  
acataaaatt ctttttcctt atgtttgttt ctttttctt cactttagaa aatgttccag 120  
aaatatatgt ttggacaagt attctcatta aggggttggtg tattctcatc atgcatctct 180  
aataagtgtt cacctattta aaaaataatc attaactaaa aagttgtcag tattgtcaaa 240  
aggctcacat caataaaatt ttctcggac atttccaaaa aaaaaaactc taagttgaat 300  
agtttctaga tgaaaccgca aacattttca caagtacata ataacatttt caaaaaacaa 360  
acaagaataa caattttgaa atacaccaca tttttctaaa acaacaacat at 412

<210> 5841

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-036-Q1-E1-D5

<400> 5841

tacggtcaac aattccccggg tcgacggggag gtagcattcc acatcaaaaa ttctatTTTT 60  
atcatttacc tactcgagga cgagcaggaa ttaagcttgg ggatgcttga tacgtctcca 120  
acgtatctat aatTTTTgat tgttccatgc tattatatta cctgttttga atgattatgg 180  
gctttattat acacttttat attacttttg ggactaacct attaactgga ggcccagccc 240  
atattgctgt tttattgcct gtttcagtat ttcgaagaaa aggaatatca aacggagtcc 300  
aaaaggaatg aaaccttcgg caatgtgatt ttttgaaga atatcatctt ggagacgtgg 360  
actccaagtt agaagatact cgaggactcc acgagatagg agggcgcccc cctgtanggc 420  
gcgccccctg tctcgtgggc ccctcga 447

<210> 5842

<211> 321

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-D6

<400> 5842

ctcacgggtc gacgggactc catatagtga ctcgtaatag caggatcgca agatgactga 60  
ttcaaataag tcatacaacg tccttggtca accgtcatgc tccagttcag tagagaacta 120  
cactatgatt ttttgatcta caagagtaaa catatatgca tcatacggcg gccgctcgat 180  
atgattcaaa cgtaattagc atgtgctgaa gatctcactc ttcattagtg gcagttacac 240  
tccattcaat gggcgctcgc atataacgc ttgactggga aatccctgta gttcactcac 300  
gtaaacgcca agcatcacat c 321

<210> 5843

<211> 412

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-036-Q1-E1-D7

<400> 5843

ggtccagaat tccccgggtc acgggaccgg agagagagat ggggaggagc agagcttcac 60  
cgtgggggtg ttgctggagt cgtactaggt cgaggctgac cggggacgga ggaggagggc 120

gctgacaggg acgccgccgg ttccgtgaag aagaggaagc agagaagcat acgacgagga 180  
agaagccttc ggggtcctcg tggtcgctg cgaggggtgag gaagacgacg aagagggctcg 240  
gggttctctc cccgtggcag caacgcagac gacggagggtg ttcaggccgg ggacgagctt 300  
aagctctcct catccagggc gacggctatg gtgggcgacc tacctgggtg ctgcagcagg 360  
gagaggggga aatggagaga ggagaggcta nggtanggtt tggagaagtt tt 412

<210> 5844  
<211> 144  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-E11

<400> 5844

ggtcgatggg gctcgctagg atgaatcatg ctacgacgaa gccttctaag cgcaagaaag 60  
aagtcggctg ctcaagaaga tccacgctta cgtacgcgag tatacgaggt cagagctcta 120  
cgaaaatgtc accgaacttc aatt 144

<210> 5845  
<211> 377  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-E12

<400> 5845

aagtgagtcg tattactgct agcatatccc aactactca cgctaacaat gtcaattatg 60  
ttctcgagg agcttcccag ctacacagca ctcggtgtac ttgttcttcc cctgtactac 120  
ttgtactcca aggctagttg tagattaaag aagcctgcag tgctccccac aaactggcca 180  
atattgcaca tgttcccttc cttcctggcc agcctccaca agatgaatga ctatttcacc 240  
ctggtcctcg ccggatcagg cccaacttc agggggcacg gcccacccgg gaccgggatg 300  
cggttgttcg tcacatgca tgccgccagc atccgggaca tcttcacgaa gaactagacc 360  
aacgtttcca aaggggc 377

<210> 5846  
<211> 314



<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-E6  
  
 <400> 5846  
  
 ggtctagaat tcacgggtcg acggaatac caatagtcac tcgaagtaga acaagcttat 60  
 catggatcaa tggaagtttg catctaactg gcatgcagtc cgctcaggca ggtcaatggt 120  
 tcagaaaggc actgttcttg ttgcagctc atcttgctat ataagcgtat tcctactcag 180  
 aacaatcatc tgattccatc ttgactgcga ctacgctaaa ggatccaacc ttacatgccc 240  
 gtgaatacaa cctcatatcg caactatagt gtaacaactg ttcaattcac aggactatcg 300  
 ttttacaatc atct 314

<210> 5847  
 <211> 81  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-F12  
  
 <400> 5847  
  
 tgcgacaccc tatagttagt catattagtc cagggatgtc gataagggca gtgttgtaat 60  
 acctactctc tcgatgccgg t 81

<210> 5848  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-F6  
  
 <400> 5848  
  
 ggtctagaac tcccgggtcg acgggtgtcc aaagggtggc acgagggaaa gatctacttc 60  
 gcgccgacgt acaagtacaa gctcaactcc gacacctatg ccggcgagac gaccaaattc 120  
 aagaggaaaa ggagaacacc ctcatggtgc gaccggatac tgtggcacgg caaggggata 180  
 gagcagctgc agtacatcgg gggggagcac cggttctccg accaccggcc cgtctgcagc 240  
 gtcttcgtgg tcgaggccga cgccaacaac gggagcagga tcaggaacgg ctactccacc 300  
 ctggactcca gggttcattg cgagtcgccg ttgccgatac cgcagagaca cagcttctat 360

gacttttgac ctgttatagt gatcctcttt tgtcgatact tcttctatac gttacaagga 420  
tcagaaatgt ctattgagac ggggggctga acgtttttc 459

<210> 5849  
<211> 92  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-F7  
  
<400> 5849

atagtgagtc gtattaaaca ggaggtcgca atcgatggag tcggcttcag caacatcagc 60  
cagttcatct ctttatgcag cgtcaagcag gg 92

<210> 5850  
<211> 215  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-F8  
  
<400> 5850

atagtgagtc gtattaaggc gagacgatca tcacaggcac gaacacatta gtcgcgccac 60  
gggctttggg caagccactt gggctggacc aagaaagatg agagacgaga gggtgctgcg 120  
gccgagctag acatcgaagg agtgagttca gacatctggc gctgaaggag tgagggtccgt 180  
gcgcaggtga ggtcgtcggg gtgatcacgt cccac 215

<210> 5851  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-G11  
  
<400> 5851

cctaaagtga gtcgtattat gctctaaaag atgtgcgaga ggagttgaca attcatggcc 60  
ccagcgagtc accaaccaat cccatcgggt ccaatgagta gcggagctag gcaggaatca 120  
tgggggcagt caaaaaatgg aacaactaag agggtaaaaa ataatctttt ctttatctaa 180  
tctccacaca gtaaaatttc ttcactgttt tgcctaaggc tgggggtcgg cccctcaga 240

catgcactag ccttcgccac tggttccaat atatgtgcga gaacaacagc acatcgga 300  
 ttcttagtct acgccttgtg caagcgattg cccctacttc cgcggatgtg gtgcacatat 360  
 tttggaggaa acagtaaaat gcaacaaaaa aaattaaaaa ttaatatcaa cttcatttgt 420  
 ggca 424

<210> 5852  
 <211> 269  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-G4  
 <400> 5852

atagtgagtc gtattagata tatcatggag gtataccagc atatataaat agtgctcgat 60  
 ccataattta tagctggatt tcaacactta tatatctaga ttacgcccc tcaaaaaatt 120  
 atatatctag atctatgtta ttacagtaga cacaatgtca tatatgacc acggtgattg 180  
 tacttatact attcgtgcaa tatatatgta tatatacatt cgtgtaagcg tgcaaatatg 240  
 taatgatagc tctattaaat tatgttctc 269

<210> 5853  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-036-Q1-E1-G8  
 <400> 5853

gggtcgacgg gacatcacac caaagccacg ccttcattcg aatcattttt gactgtccca 60  
 cctcagtgcg ttttgcgagg cagtttcctt ggcacatctt gttgaagcag agatcatgtc 120  
 cccttatcac gggattctca tcaatacggg cgttggtaac ccaaccgtgc caatgattac 180  
 gggacttggg ggaaaagcga gttttgccag gctggtgggg acacatagcc ttatccgccc 240  
 atataagggg ataaggattc atccttttat ccacgccttc ttcctccttt gctcatccat 300  
 cttcgcacac tcgagctcca gcgcccaagt ccgcatttcc cacctcaacc ttctccaacc 360  
 atgtccggag tgggaggcan gtggatggtc tcctccgtca cgganggaaa catcaagaag 420

ctgaggagag ccggatacct g

441

<210> 5854  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-H1  
  
<400> 5854

ccctatagtg agtcgtatta gtccattgga gctgatgttt ctgatgctga gcagggaaag 60  
gcagttgagg tttctgatgc tgagcaggga aaggcagcta aggtttctga tgctgagcag 120  
ggcagggcag ctggagatat cattttggag gaagatccag ttgaggggtgt tgttgagact 180  
cgtggtagtg ctgctgcagg ccaggagaag tctcctgcag cagagccatc agttgatgtt 240  
gatgctgggt ctccaactct tcctagtgtt ggagagccaa tggtttttgt tgtttcagat 300  
tctccagctg ctccagctgc tgggtgtgtc cttcccgaca atgctgctat gtcaactgga 360  
gatgatgatg aagagactga aagcgatatc tatgaagccc aaaaaaaaaac aaccaggggc 420

<210> 5855  
<211> 245  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-H11  
  
<400> 5855

ttgtaacacc ctatagttag tcgtattaag cgctcggaaca ggataaactc gggaggggct 60  
acgtcgttgg gaagctcgtc tggctctgatg ggaccacta tgtgaggagc cccatcgtgg 120  
taaatgccct ggattgagat tttcattttt gtggtgtgta gcccaaggga aggaagtgtc 180  
atgagtttag gaattttctt ttttagttta ctgagaatga gatgagttta taggttttag 240  
ctcaa 245

<210> 5856  
<211> 387  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-H2

<400> 5856

ccctagagtg agtcgtatta catcaagaac tgcacgcatg cctgccccaa gggactgaac 60  
ccggcgaagc agatcgacac aataaagaag ctgcagctcg gagcctgagt gaggtctact 120  
accccgtgga gatgtggaaa attgtaatca gcctggcatt tggtttggtt tggctccgtg 180  
gtgacaaata atgggtggaa acgcaggata ttcccagctt gacgattccg tgtagttcgt 240  
gaataattgc taccagattt tattcttttc gtgctgtatc tagtttggtg gttctccgtt 300  
gatcatcttt tgatgtccat gcatcaatta attcataaac ttttggaana aaaaaaaga 360  
aaactcaaaa aaaaaagcgg ccgctct 387

<210> 5857

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-H5

<400> 5857

ttcacgggtc gacggggtgt catatagttg taccaactgc aattttttct ctaaaaaaga 60  
aaagggatcc taggttgtga agcaaaacta aagggatgtg gataaaggga gggatgatag 120  
aaagaaggaa gaggaataa ataagatata ggattccact atgtatggc tatgaattac 180  
atcataaaag gcaatgtgat aaagcatcaa tataataaaa ataatagaga attaaaaatt 240  
ttaacttgaa acaagaacta caaatttaaa gcaataataa agagccgccc gggtaataa 300  
aactgagaaa attaactcgg aaagaaattt tttggaagct ccgttgccgg attcagacct 360  
aaccattcaa ggagaagcag tgggaacgac agaacctatg attccatagg attttattga 420  
aaagaatcct aacac 435

<210> 5858

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-H7

<400> 5858

attcccggtg cgacgggagg agtttatcta aattaattgt tgcccccttg gttagccgcc 60

catgctgctg agaaccactg tctacgaaac ctgcagcagc gtacattgtg attttttttc 120  
 tcccccttcc cccatttgtg atatctgttc tttgttgctt agagtatatt atgtccgaat 180  
 tgtatttata cacactgtga caccgactat ttatataagg cagctggtgc atc 233

<210> 5859  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-A1  
 <400> 5859

tcgtatgtcg atgcgactcc ctatagttag tcgtattaaa ccattccgag atatattgcc 60  
 atgcaacttt ccaccgtcct gtttattatg acacgcccc a tctgtcatat tgcttttgca 120  
 tgatcattta gttgacatcg tatttgtggc aaagccacct tgataattct ttcatacatg 180  
 tcactcttga ttcattgcat atcccggtag accgccggag gcatccacat agagtcatat 240  
 tttgttttaa gtattgagtt gtaattcttt agttgtaagt aaatagaagt gtgatgatct 300  
 tcgttattag agcattgtcc cagtgaggaa aggatgatgg agactatgat tccccacaa 360  
 gttgggatga gacttcggac cttataaaag aacagagttc tccgtc 406

<210> 5860  
 <211> 187  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-A10  
 <400> 5860

attacaacac cctatagtga gtcgtattac ggctccgctc gacaccgcca ccacggctcg 60  
 aatccgcacg tctctcaccg atcacggaat gagggtagaa acaacagcag gatcagcagc 120  
 tcaattgggc atgtaccgta cgatacagtg aaatcacacc gtgtcccagt catgtcatgt 180  
 cgactgt 187

<210> 5861  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-A11

<400> 5861

gttggtcaat aggataccct atagtgagtc gtattaattt tcatgccttc tactttctgt 60  
gctaattttt tggctttaga ttttatgaac tatgcaagtt acgcatctat tcatgtgtca 120  
gatatggaaa aatcaaggga agtaaaaatg aatgacatat acatatacaa catgtacacc 180  
ttgtctcttt tgtaacgat atttcagatt aagcaacgcc gaggacggct ttattttcaa 240  
gaaggggagg atgatgagga caggactacc ttggatatga ccaataatat tgcatatatg 300  
catatttgtc aggtgatttc tagtgcaaac tattcaataa tctacttatg ttatccagaa 360  
caciaatacg tcacacactt ttgtgttttg tacaattgca ggtgtatggg acatttg 417

<210> 5862

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-A3

<400> 5862

gctatagtga gtcgtaatag atctacgggt tgtgctgata cactactata gcactacatg 60  
gggaacctaa gctacctaat cctcgtgtac tttcgacata cgttcgtcca gagtaagctc 120  
tacgatgaaa gcttgaacct gcttgtgatg gagatgttat tactgtggtg acctgaaatc 180  
ttgagtcaca gaggctttca agcattatgc acagccactg aagaaatact cggacacata 240  
caccataat ccatcatgcg ggactttgcc tcagattcgt gaattacagg atgaatgatg 300  
tgatgttcaa actgctggat atggcttact gaagacgtac cacgcaaca acgagtactg 360  
tccgttttca gat 373

<210> 5863

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-A5

<400> 5863

ctatagtgag tcgtattagg tttaaaaggg gaaccaattt ttgtaatggg ttagtagggg 60

ggaggagaca tggataattg gtgctctact tacttttgtgt tgtggtcggg ggtggtcggg 120  
 tttgttcgcg gagactgctg ttattagtct gttggccgag ttgtagagaa ctctctttgc 180  
 tgctgctgct gttacttcct tctgatgttt tttcgttttg ttattatata gccggatgaa 240  
 gaaaagatga tgcagtttta tctaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa ttaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagcggccgc tctaaaggat 360  
 ccaagcttac ttacccttgc atg 383

<210> 5864  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-A8  
 <400> 5864

accctatagt gagtcgtatt aaaatgacat gctgcaataa gttgacaccg acaaagatgg 60  
 caggcttaac tacaaccagt tcgtgtctat tattaacc gccacatact ggagaaaggc 120  
 atcacgcac tacccgagag gcatattcag gagccttctc atgacgcttg tgacggacgg 180  
 ttccgtcaaa ttggacgtga attaaaagcc atgggtgtga cttgtgcatg tatgttacag 240  
 catttgggcc ccacgaatca acagctcctt taatttttgt catggtcttt ttgcgtggaa 300  
 atttagatca gtggaacccc atcagattgg ctacacatg 338

<210> 5865  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-B11  
 <400> 5865

tatagtgagt cgtattataa tttccacct tcggttgggg tcatgatcag gacctactgt 60  
 atatcagtac cgtggccacc tgattcattc attgggttat gaggattctc atatttgtgt 120  
 gtcatgcact atcaattgaa atttccatgg acgtacttct gggggcctct tttcagagat 180  
 tactgtcatc agagtagcca tatcacacgg caattgcctt ggcgacagct caagtattca 240  
 tggcaattgg acagcttcag ctttgcaatg agtaggctcg gcaaaatgta cattggcaca 300



ttgcttatcg agctctggta ctgcacccac tgggcatcg tgccagctgc tgcctctgaa 360  
 ctgtttggcg tgaagaattt cggagcagtg tacaacttcc 400

<210> 5866  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-B12

<400> 5866

gacgcgttgt tcattacaat accctatagt gagtcgtatt aaaagcctct gtacaagttc 60  
 agtctcgcga aatctcgaag gttgggtgata gcgtgttcatt tgaggaaatg cctgatattc 120  
 taaggagacc ttcttctcct ggtatcgtga agacttgttc ccctaatagga aaaagagttt 180  
 caccgccaca taatgcactc agcatttcag caaaccgaaa aggagggcgg aagctgatag 240  
 tgaaatcgat ggctccttt ccatcagtggt ttggggagac gagcgggtgga tctgcaatat 300  
 gcagctccga cagcagaaca gctcttgctt taggtccatc gtaaaagctg ggctgggcag 360  
 ccgattatcc gcgagcggag 380

<210> 5867  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-B3

<400> 5867

accctatagt gagtcgtatt atgtcgccgt ccaatggtcg ggaactcgtc cgaggatgag 60  
 tacggcatgg gaggcggcat ggcatggtgt gcaaactggc cggctctgtat cccgtgttct 120  
 actcttccgc aacggagacc gcaccttcac ttcacgggtc ttgaaaccg cgcccgtaca 180  
 tacagatcgc agatggacga cgttgggtcac cgccggtaaa atatgttcac gatcgggttt 240  
 cgtttatctt tctgtccac aaaagtacga actgtagtga caatctggcg tgtctgacaa 300  
 aagctcggct ggtgtatatg aactttcaca atgtacaca tattgtcaga gtattacaa 360

<210> 5868  
 <211> 360  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-B8

<400>       5868

gacaccctat aatgagtcgt atcatgaatg aggagcggag tccactccct tgggaataac   60  
ccacctagca tggaagatac aaatagacct agttgaaaca tgagctgctc gagtatacaa   120  
aacagcattt catttgaagg tttggagttt ggcacataca aatttaattg ggacggaagg   180  
taaataccgc atataggaag gtatggtgga ctcatatgga acaactttga ggtttatgga   240  
gtttggatgc acaagcagta ttcctgctta gtataggtga aggctagcaa aagactggga   300  
agcgaccaac tgagagagcg acaatgctac gtcttgagct tgtgttggtt ttccccgaag   360

<210>       5869

<211>       406

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-037-Q1-E1-B9

<400>       5869

gtaggacgtt gggtgacccg atagtgagtc gtaatatgaa gtgttctgtc gcgtagaata   60  
ttctagtgtt atggaacttc acatcgaatt ccaccttaac aggaacaagt actagattgt   120  
agcttggaag atcagtataa gacataaagg ttaaattagt tactcctcgt acaacaatta   180  
cagaatctag actacaacga aacagattca aaatccaacg atgcaataaa ttcactcaca   240  
agagacaata tgctcccatc agccccgaag gcatgtacag aacatcagct ttctgcacag   300  
catcgatnt gatcagctgg actcatagac tcagcacagc accagccggc gaagttcgta   360  
gagcgtccga taagccactc cacaggatca gtaacagtcg atccaa                   406

<210>       5870

<211>       393

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-C1

<400>       5870

gtcgatggga caccctatag tgagtcgtat taaagcttgc gtatgtagcc cttgattatg   60

accaggatct ggatactgcc aagagcagct cctcggttga gaagagctac tcagcttcct 120  
gatggtcacg tgatcatcac tggcgcacag aggttcaggt gccctgaggt cttcttcgag 180  
ccatccatga tgagcattga gtcttctgga atccatgata cgacctatac ctccatcacg 240  
aagtgtgacg tggatatcag taaggacttg tatgagcaac attgtgctca atgggtggcac 300  
aagcatgttc acaggtatcg ctgatcgtat gagtaatgat ataaccgccc ttgctccgaa 360  
caacatgaag attaagttct cgctccacct gat 393

<210> 5871  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-C10  
<400> 5871

acgcgtagga cattacaaca ccctatagtg agtcgtatta aactgggaaa gatccaccaa 60  
ctctattacg tggaatcggt gttcgtaata cccttggtcac ctatgaccgc cacaatgaaa 120  
agattggatt ttggaaaact aactgttcag agttgtggga gagactccag agtgatgggg 180  
ctccttcacc agcaccttcg agtgatccaa gttcacaagc agatttagcg cctgcgcctg 240  
ctcgaggtgg tttgccagaa tatgatgttg gtcgcagcgc tgtttacatg tcgatagatg 300  
ttacgtatcc aaacctgaga ccgcccctag atgagttggc tgagctgttg gctaaagcag 360  
ctgagataga gtccagtcag gtccga 386

<210> 5872  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-C11  
<400> 5872

ctcgtgggtc gatggggcac ccgatagtga gtcgtattaa taaaggagtc tgtctaaggt 60  
gaactctttg gacttccacg cgtggagact tcgatgtcat taatgatggg tccccagctg 120  
aactcggtag tgttttacta taagactacc acgtgggtcat gtttgtctgg gacagcgtgt 180  
tcacatgttt gtagcaaaac cagctcatgt tttggagctt actatcgtag ttcagtcgcc 240

gagaatcgcg cagcgttggt ccgtcgaatt gtgttgcaaa ctttcatttt tctgcctaga 300  
ctcgaatgagt ctggaatatc ctgacagcaa ccagatctga atctcaggca tatatgatgg 360  
tttggaaacat ttcccaagaa ctataatatc ggtccctcga ataccggtaa agtggatgtc 420  
gtgggcaaca tcacc 435

<210> 5873  
<211> 89  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-C12  
<400> 5873

tcattacaac accctatagt gagtctgatt atgttcggat catgagcata gggtttgttg 60  
ccatcgtggc tgtgccccag gttttcggc 89

<210> 5874  
<211> 316  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-C7  
<400> 5874

agtgagtcgt attaagtggg gagcgtcacc tccctctctg gcggtgtcaa tggttccacg 60  
acagcctacc tcggcggaat acgtccacaa catggccggg ctataagggt cgtctgcctc 120  
gccagatct accgagtggg taccaccatc taccactggc tcgacatacc ctgggtcagg 180  
cgctactacg acttcgggtt cgaccacttt ggcatgtctt ggcgacacagt cgggtgtgtca 240  
ggcctacca gcctactcgc tggcacctcg ggaccgttcg ccacacgaga ctggattcta 300  
ccggacctca ccatcc 316

<210> 5875  
<211> 137  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-D12  
<400> 5875

gactcgtagt acgttataac accctatagt gactcgtatt agcgacacca caaaaggggc 60  
 ttaaaagaac cagagtgagt atccaggagg tagaaccgtc cgagggagac gcaatagttc 120  
 agagactgta aatggtg 137

<210> 5876  
 <211> 222  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-D2  
 <400> 5876

gggccaccct atactgagtc gtaatatggc aggatcccg cctagtaaac gctccctgat 60  
 catgccaaga ctacgagact tcacacgccc gaccatgtca atggcgacta caccgtcttc 120  
 gccaacgccca ggataaacag caggaagatc cataaggcca cgtcctgaac atgtgacagg 180  
 cttgaagcaa cactgtgtga gcaattccac gccgtaggac ac 222

<210> 5877  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-D6  
 <400> 5877

gatgggacac cctaaagtga gtcgtattac gagaaaaagc aggggtacatt atccccaaat 60  
 gttccatctt cctagaaaag tggattcgtt ccagaaaagt tccagaagat gctaattggt 120  
 agcaggagga ttgtttacga agaaacaaca gaaaaaatc atattctgat acagaggagt 180  
 tatataggaa tcgaaatagt cgttgatttt ctttgtgaag aaaaaaatg gatttcattg 240  
 aagtaataaaa actactccaa ttcgaatagt agttgagaaa gaatcgcaat aaatgcaaag 300  
 atggaacatc ttggatacgg tattgaagga gttgaaccag gatttccaaa tggataggat 360  
 aggggtatttc tatatgtgat agataatcca aatgcaaaaa tttgtcttc 409

<210> 5878  
 <211> 207  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-D9

<400> 5878

ttaccctata ttgagtcgta ttagcatcgt caggtgataa atttattcaa tttttgtcag 60  
tagtccagtc atgctactca atatacactt agtatagtgc ttaccatcat atattcggtc 120  
tatgtcataa tgtaagcatc tgtgcatccg ctgtacagca tcagtctcac tagtcccaat 180  
atgctcatat cgtcagtaac ggatctg 207

<210> 5879

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-E5

<400> 5879

cgtacgggtcc agaagtcccg ggtcgacggg atgacatagc aagattctcg ggaaatgaac 60  
tatgatagca agtcccaaaa catgagctgg ttctgctact cacatgtgaa tacgttgtcc 120  
cagacaaaca ttatcacatg gtagtcttac aataaaacac taccgagttc aggtggggaa 180  
ccatcattaa tgacatcgaa gtctccacgc gtggaagtcc aaggagttca ccttagacag 240  
actcctttat ctttgaacaa ctcaatcagt ggcttggtgt gctaggatat acatatggaa 300  
tgaagatgat tactctaaca gaccacagaa ttcttcgcac gagcatgact gacttgggat 360  
gactccaaag gaggtaaaac aagccttctc aaattcacga cggcaactta catcaaattgc 420  
a 421

<210> 5880

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-E6

<400> 5880

agtgagtcgt attaatacgc agaagatgcc atgactccca tatctgaaac cttctcactt 60  
gacataaatg ccaagctgga tgtgtatgaa tcttccaatt tactgtgtgt ttttatcgaa 120  
atatatggta ctgatgctac tatttgtctc ttgataggca tacgggtgggt acgataatga 180

ccagagggca cagccgtatt cctatatact ctggaagacc aagcaatatt atcgggtctta 240  
tattggtgag taagctgaca ttttcaagaa ttaactgcat tgattgagat cacatctcat 300  
tagttagggt cattctgcta catatgtttt tacggcctcc atgttatgag ctctcactgg 360  
cgaacatttt tggagttgca ctgttcagac cgggtgccta acaagacttt g 411

<210> 5881  
<211> 240  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-E8  
<400> 5881

cctagagtga gtcgtattac ggcattgcacc agaagagctc ccgcagcgtg gaagtgctat 60  
cggcatcggg atcctgctcg tcgtcagtc tcatcatcat catctcgatc gtgctcacga 120  
gtagctggag gaccaacaga aatcataacg agcggtagta ggaatagggt gtgatgatat 180  
gatcctgggt tgcattgcatt cttgctgggt gttgttgatc gcttattgtg gaattttttg 240

<210> 5882  
<211> 121  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-F10  
<400> 5882

tcgtaggaca ttacaacacc ctatagttag tcgtattagg tcgtcaattt gattgatgac 60  
gggaagaacc ccgatgagtt cagcaggac gtgctcaaca gctgcatcgc caagaggcag 120  
a 121

<210> 5883  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-F6  
<400> 5883

gggtccagaat tcccgggtcg acggggcccat ataaagcgcc acatgcgagt gagtgccta 60

tgacaaccac cgactgcatg tggcccaaac atgtatgtat ggaaggggtg tgtaatgttt 120  
 taaataacaa attcatgact ttgatgtggc acttgcacaa caaaagggcc aatcctagac 180  
 ggtgggttgac gacccatagt gtactggcag cccccctccc ccccaacaca cacaccgcac 240  
 atccaccgcc tctatgagge atgttaaaat tttctgctat gaacatatgt gaccaaagga 300  
 gtgtcgtgtt aaaatttgaa aaaaaaatca gagatcattc aaacactttt gtacattgat 360  
 taatttccta gggatataat gtgcggaaat caaattagag ctacatgcac acgtgatagt 420  
 gcaccaaagt ggtagaaa 439

<210> 5884  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-F8  
 <400> 5884

ctatagttag tctgaatacc ttcgcggcag cacagccggc cacgggaggc aggagcatgc 60  
 ggcacgaccg acgctgcttt gggcggctgg agcaagaagg ccaaagggtg aagaagcact 120  
 acggccgttg gatggacatc gtacggtcag tggagctaga atcgttcata ttgactaaag 180  
 ttgacaaagg cccccgtccc agtcaactta gtaggcccac aagtcagcct cccaccatgg 240  
 tgggtcccgga ctagcagggg aagtattcat ttttttgtgc gtaataagga ggcacttccg 300  
 gtgggtccga gctgacagcg gggggaacgt ttttttttgc aaaatacgct ggcccgtccg 360  
 gtgggtccga gcagtcaggg ggaaacattt ttttcgcgaa ataaagtggc c 411

<210> 5885  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-G3  
 <400> 5885

accctatagt gagtcgtatt aaacaatgtc ggtgtcaaaa cgggcggatc ttgggtaggg 60  
 ggtcccgaac tgtgcgtcta aggtcgatgg taacaggaga caggggacac gatatttacc 120  
 taggttcagg ccctctctat ggaggttaata ccctacgtcc tgcttgattg atcttgatga 180



atatgagtat tacaagagtt gatctaccac gagatcgtaa tgactaaacc ctaaaagcct 240  
 agtctggcta tgattataag gattcggcct atctacggac ctagacctcc ggtttatata 300  
 gacatgggac ggatctaggg ttacacaaag tccgttacag ataaaggaa 349

<210> 5886  
 <211> 126  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-G4  
 <400> 5886

ctccctatag tgagtcgtat taagcgcttt gctaaatctt gacggcagca ccataggatc 60  
 caatcctacg tacgcatgca tgccacgtga taacgctgca atgctgtcac gctaaattca 120  
 attctg 126

<210> 5887  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-H1  
 <400> 5887

tacattagac caccctatag tgagtcgtat taatcaaagt tatttactca aatggccagc 60  
 tgggcatggg tacgatgaaa ttaggcagaa tggcaaaatc agcagcatct actgtgaaca 120  
 caaggcgaag agaaaaggga ttgcttcctc gtccggttcg agctggaatt gttggatata 180  
 caaatgtcgg taaatcttcc ttgattaatc gcttgctaaa acgaagaatg tgtccagcag 240  
 cacctagacc aggtgtcaca agagaactga agtggggttcg ttttgggaag gatctagagc 300  
 tattagactc acctggaatt ttgccaatga gaattagtga tcaggcagct gcacttaagc 360  
 ttgctatccg tgatgatatt ggagaaaggt catatgattt tg 402

<210> 5888  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-H11

<400> 5888

gacgcgtagg tcgttgaac accctagagt gagtcgtact acggaggcac cgtgtcacac 60  
cgtgacggac aatgcgccgc acgaaccagc acgccgcatg aaccagcaga cacttcgacc 120  
tatgcccccc cttcaagatg tttatgaaaa ttaaacgagc cgaaggcgag caggagggtc 180  
cctcgtgcct gaggcgccgt gtcacaccgt gacggacaat gcgccgcacg aaccagcacg 240  
ccgcacgaac caacacgccg cacgaaccag cacacacttc gaccagcaca cacttcgacc 300  
tatgcccccc ccccttgacg atgtgtatga aaattaaatg agccgacggc gagcaggacg 360  
ttccctcacg ccggaggcgc ggtgtcacag cgtgacggaa aatgcgccgc acgagccagc 420  
acgccgcagg 430

<210> 5889

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-H5

<400> 5889

cccgggtcga cgggtctgcc catgatgtct gatactaact acatgggact gagcatgaca 60  
gagctcgccg aaagctatgt cttctcccag ctcaacgcgc gcagcgagg accatgatcc 120  
atccagcgac cacttcatgc accatcctct tgtgcaatct gtctgtggaa ctacatgtgg 180  
tagaatatgt gccctgaatc gtcaacgggt acaattcacc attgatttgc aggctacgat 240  
tgacatgaga ctattgttga tgcttctcga cgctcgcag tcatatgtaa ctgtctagag 300  
taagttgttc ttccacgtac tagcgcaact ttaagcgtc agctttttat ttcattggcct 360  
gttagaatgc caatgcacct taatctcacc tacacgcatg gatcaacgtc gaattgagtt 420  
atacgaaact tggaaaatt 439

<210> 5890

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-H9

<400> 5890

ctcgtgggtc gatggggaac cctagagtga gtcgtatgac gatcaatgta acgcacgcct 60  
ctacctgatc atacccaatt ggataaagtg tgtagagatc atgtccgtat accgtacgtg 120  
ctactgaagt aaaagattga gtctgtgtct aagggtactt atataacaaa tcaagttatt 180  
cctaatatct acatccctca tcatgacagg gtacggcata acccacaatt atgaagttac 240  
ctagcacatg agcaactata catgacatca tcgcagtctc ttacaccgtg tgtgggcccc 300  
ccctcgagag tgcactacat gatccatac 329

<210> 5891  
<211> 214  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-038-Q1-E1-A1

<400> 5891  
taccggtcca gaattcncgg gtcgacggga tgtagcaaac aatgaatcga tggacatgca 60  
tctatcattt tgtaaacata ccagttgtct cggtgataaa agcataaatg tttcctcctt 120  
tcagttagtg aatattctcc ttggtcctg gtttagtatt ttcggagtac atgcaagtta 180  
ctgtaacttg attgatagtg ttgtaagag atat 214

<210> 5892  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-A10

<400> 5892  
cgggtccagac ttcccgggtc gacggggcgt gacggaccgc taaacctaga caaatattga 60  
ggaaaatgaa gtttgacggt cgagcttgga gaggagaaac cttaagtagt gtggctcggg 120  
cattccatcg aacaccttgt gtgcatagga ggtgagctag agcatcacca agccctctcc 180  
ccctcggcca gaaaaaacag agcagtgtgc tctgtctttg cgtgaggggg tatatatagg 240  
caccatcatt ggtcccgtt ggtggcatga accgggacca aaggcatccg ggaccaaag 300  
gtccggacga accgggacca atggcccacg tggcccggcc ggcccctggg ctcacgaacc 360

gggccaaata gcctcattgg tcctggttct ggattgaact gggactaatg ggctgacctg 420  
gcctggacaa tagccccctt t 441

<210> 5893  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-A11  
  
<400> 5893

accctaaagt gagtcgtatt aacaaatatt gaggagaatg acgtttgacg gtcgagcttg 60  
gagaggagaa accttaagta gtgtggctcg ggcattccat caaacacctt gtgtgcatag 120  
gaggtgagct agagcatcac caagccctct cccctcggc cagaaaaaac agagcagtgt 180  
gctctgctct tgcgtgaggg ggtatatata ggcaccatca ttggtcccgg ttggtggcat 240  
gaaccgggac caaaggcatc cgggaccaa aggtccggac gaaacgggac caatggccca 300  
cgtggcccgg tcggcccctg ggctcacgaa ccgggcca aa tagcctcatt ggtcctggtt 360  
ctggattgaa ctgggattaa tgggctgacc tggactggac aatatcccc ttt 413

<210> 5894  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-A2  
  
<400> 5894

taccggtcaa gaattcccga gtcgacaggt aggcctaaac ctgctgctca cttcatgggc 60  
atgcatcaaa gcctcggtat tcagctcgca cagcttggga aggatgcttc tgcagcagga 120  
gctgcacgca gaggtactac tcagcggaag acagttgagg tcgagtctgt tgcagctgca 180  
gggaagcaac aagctagaga agtagtgaag aaatctttcc gtgccgagtt cctcgagaag 240  
ctgcacaaag atttggtatga cgatatcgat gtgagagcct tggcaaattg atttatatct 300  
gtcactctc tgaatgtgca cggccatgtc gagtctgaac tcgaagctcc agcgtcagac 360  
tggtgtcag cagctgtgtc tgtatccgaa gaaaacgaag ctccagcgac ctaacagaca 420  
ctcagaaatg tacac 435

<210> 5895  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-A4  
  
 <400> 5895

cgccggcatg taccggccca gaattcncga gtcgacgggg acgcagaaga tcgtgatccc 60  
 gccgggcaac ttcttgggtg cgcgctgga gctgtcaggc ccctgcacct cctcgatcat 120  
 catccggctg gacggaaacc tctcgggaac cggcgacctc accgcctaca ataagaactg 180  
 gatcgagggtg atgcgctggtg acaacttcac catcaacggc cacggcacca tcgacggcca 240  
 tggccccctc gtgtgggaca agaaccagtg cagcaagccc tacgactgca agatcctctc 300  
 caacagcctg gtgctggact acgtgaacaa cgcgacgac cgtggcatca cgcttaagaa 360  
 cgccaagttc ttcaacctca acctcttcaa gtgcacgacg gtactggtgg aaaacgtgga 420  
 gatcactgcg ccggtgaaca gcccacacac tgacggcatc cacat 465

<210> 5896  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-038-Q1-E1-A6  
  
 <400> 5896

accggtctag aattcccggg tcgacgggca aagaggttat acagcagggt tcacgatgca 60  
 ttcgttgagg cattttgtca aatgacttct catgcagctc ctagcttttc agttaagcat 120  
 ctctgtctat tggaattcgc ccaatgatg tgcttggggt ttgttttgat tgatggacct 180  
 taaagctgaa gcattaatgc atgaacttgc taaatggatg gagcaacagg catagaagaa 240  
 atccacaacc aatttttctt ggctgcgcca tcttccgctg acagtaactc tatacaacag 300  
 cctgctaagg tacgtaagag tgatgataat gttacttaaa ggaggccaca acttgcacca 360  
 aatatatggg catgtgcaac ggcaacttat gtaaactggt tctaggtgat gctgatgaat 420  
 catgtaagga tggagcataa ctcacca 447

<210> 5897  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-A8

<400> 5897

accggtcaag aattccccggg tcgacggggc agttggtgcc cctctcggag cagcagctgg 60  
 tggactgtga ccaatacgac ggcgggtgca accgcgggtc ctttcacagg gcctacaatt 120  
 ggattgtgga gaatggcggc cttaccacgg cagcggatta cccatacacg gcggtgaggg 180  
 gcgcctgcaa ccgcgccaag tccgcccac acaccgtcaa gatccttggc ggcggcgtga 240  
 tcccgcccag gaacgagccc gaaatgcagg tcgccgtctc cgggcagccc atcggcgtgg 300  
 ctatcgaggt cggcagcggc atgcagttct acaagagcgg cgtctactcg ggcccctgcg 360  
 ggacaaatct tgctcacgcc gtcaccatcg tcggctacgg cgtcgatgcc cctactgggg 420  
 ccaaatactg gctcgtcaag aactca 446

<210> 5898  
 <211> 301  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-B11

<400> 5898

gcgtatgaca ttactacatc ctaaagttag tcgtattaaa cggtttagcg gcgaacgaga 60  
 caatttgtgg ccatccacgt gattggaatt tccatttgta ggctttcaat agcaccacgg 120  
 tatgctagag ataacagttg gaggctttca gtgatagttt gtcttgcaat ggggacataa 180  
 tatttctagt gagtaaaaga cggacgtggg agagaggaat cagcgcagag gagatcggcg 240  
 agtaaaaggg cagtagaagt aaagaaaaaa agccggccgc tccacaggtt ccaaccttag 300  
 g 301

<210> 5899  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-B2

<400> 5899

aattcccgag tcgacgggac tcttgagggtg catgccgttg acggcgatga ctgcctgatt 60  
aagtatgacg gtccagagtc catccggagt ggagtgaatg cagccatcaa ggataagttc 120  
cccgacatca cgaacgtggt gttcaccag tgatctacaa gtagcctggc cggcttgatg 180  
ccatcccagt gactaagtg gcgacatgta cgaaatgcag cgagattctg tatcatctac 240  
acacgagttt cgatgtatcg tttgggtata caaagttgca gcacacacaa aactacaat 300  
gggaaatgac atggaataat tcttgccctat tggaagccgc ctccagaact caccatccta 360  
cgtggggccgc gtaaggttct tcaagaagga actcctcaaa gaacgggact tt 412

<210> 5900

<211> 441

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-038-Q1-E1-B4

<400> 5900

attcncgagt cgacgggatg cgcgaacggt ttaactagac cggccgcatg ggcaaccggt 60  
gaagaccgga aggaaccctt taccggcaaa aggtgtgtgg caatttggtc caciaagtgg 120  
atgaggtgat cctggctctc atcacaatcg gctgcttgc gctccaacct gctcccctga 180  
cggcctatcg tatctctgc tttctacagc aatgtcgctg atgctcagag catctttgtg 240  
gtggacgcct gccgcttttg aaggctccatg aactcctgca cataatgaag gagcatggga 300  
ctcctctcct ccttgagctc acggagctcc acgtccttgg ccctatgctc cgcaccttg 360  
gcctgcagct cctgtgtctg gcgcttcacc tcaaattccg tgatctgatg tgccgcatg 420  
gcactaggta gaagcaatgg g 441

<210> 5901

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-B8

<400> 5901

accggtctag cattccccggg ccgacgggag gagaaaaggc ggaaggagct gcctctcgag 60  
 ctgaagctga ggggtatcgta tgagctcgtg gggcggtga acggcctatg ggataacggc 120  
 actgccatct agcaacgaga agctctggaa tcatggcgtg ttgagacgct aaaagatgca 180  
 aaaagtgcatt ctactcggaa ttcattcaaat ttgggcctct ccagtggagga agcacgattg 240  
 ttaaagcgag ccctggagtt caactggcat gcgctattgg aggatattgg tctttggatt 300  
 tcaccagaag tcccacacac cgagcatgat gacaaacctg agaatgaacc agaagaagaa 360  
 gaaataatag ctggtccacc tttgcatcca caatgcaaca ctgagctaca tgccgattat 420  
 ggtggtgctg ctgtgagatg gggattaac 449

<210> 5902  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-038-Q1-E1-C10  
 <400> 5902

ccggtccagc attccccggg cgacagggac gacgacgtgg atgtggacga gtcggataga 60  
 aagctcttag atgatgaaaa gaaacccgat atcacgaaac gaccacacac tcctattgga 120  
 gatgaggtgg aatgcaagaa gccaaagata gcagaaggct caagggtcca aggagaagaa 180  
 cctgaggctg gagggataaa gaattcctcc tgggtctgat gacaggggaa tgcagtaaac 240  
 accagaagca tcaaaactat gatctggaac agtatcctga ataaactatt ttctggatta 300  
 tgaatgaatt ctgaagcatg gggctataag tgaattatgt aacatggatt tgtaactatg 360  
 gtggatgta agttaacgtt ctat 384

<210> 5903  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-C3  
 <400> 5903

attccccggg cgacgccggc cgccacctca ggatcacccc gcaccacgac ttccgtcatg 60  
 gctcctgcag cagccacggc tgcgcctcgc ccactgccc tccaacatg tgcaagggca 120



aggtgatgga tgcgatgctg caagaactgt ccgcgggcggc tgcggcaggg acgaggaggc 180  
 cgagtagagt ggtgtacctc ggcgatggta ggggcgacta ctgccccacc ctaaagctgg 240  
 ccgagcggga ctacatgatg cccaggaagg gctaccccggt gtgggacctc atcgccggag 300  
 accggcgggc cgtccgcgca gacgtgcgcg ggtgggcccga cttcaaggac ctgnatacgg 360  
 tgctgcttga catcatacac gaatgcgccg cggccgccat gatggaacaa gacggcggc 419

<210> 5904  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-038-Q1-E1-C4  
 <400> 5904

cgctgcatg taccggtcaa gaattcccga gtcgacgggg gtaatattca aggacaacca 60  
 agagcctaag cttggggatg ccccggaagg catcccctct ttcgtcttcg ttcacggta 120  
 actttacttg gggatatatt tttattcgcc acatgatatg tgttttgctt ggagcgcat 180  
 tttattttgt tagtttttgc ttgatgttat ttagattaat gttttgcatc attaggttca 240  
 ataaaaaagt caaggataga ctttgccatg cttattttgc tagtatacat gttggttggt 300  
 tgaaaacaga aagtttaccg ctgttgcaaa aattccctag aaaagttaga gaatggtcta 360  
 acattggata tttttgcata ttaagatgtg ataaatttac tacagtgaga attttagttc 420  
 ataatttttg gagttgggta tgtaagatga atcttgcatt cctt 464

<210> 5905  
 <211> 202  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-038-Q1-E1-C5  
 <400> 5905

acggtctagc attcccgggt cgacgggggg cacaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 agcgcccgcc ctaaagggtc caagcttact tacgcttgca tgcaacttca tacctcttca 180  
 atagtgtcac ctaatttcaa tt 202

<210> 5906  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-038-Q1-E1-C6  
  
 <400> 5906

```

accggtctgg aattccccggg tcgacgggag agagtgtgtg agcatgtttg agagaccacc   60
gacggagggt gaaactacac gtaaaagact gatgtacaca ttgagaaaaa acataaattg   120
tatccaaaca ttaggatggg atcatgatat ttgcaattcg cgtaaggaaa ggtcattgat   180
ccatcagaca tctagattct attgaatttg agcatgtcta tgttattatt cgacataatt   240
gatccacata gttagtattt tgaactccag acaatgcata gctttagcaa tggaatataa   300
acgtgagtat aattcatgtt gtgtgtgtaa agcacattat acatacgaaa gttacacaat   360
gaacattata aatagctagc taggaactag catacatttg aattcaactt aagggtggtt   420
aaaaaattcg aattcaacat gaagtccatt                                     450
  
```

<210> 5907  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-038-Q1-E1-C8  
  
 <400> 5907

```

taccggtcaa gaattccccg gtcgacgggg ttgctaaggc tgattgcttg gatgatttgg   60
cttttgcaat tatgcaagag atgagcaaat tatcatcacag ggttactgaa gaggatgtta   120
ttcgtgcacg caatcagttg aaatcctcca tccaactcca ccttgatggc tccactgctg   180
ttgttgagga tattggacgc cagcaactca tctatggccg tagaattccc attcctgagc   240
tttttgctag aatagatata gttgatccca gcactattag gcgtgttgca aaccgcttca   300
tctttgacca ggatattgcc atcgtgcca tgggaccaat tcagtctctt ccagactaca   360
actggttcag acgcaggacc tacatgctcc gttactagat gattcgacca gcggtg       416
  
```

<210> 5908  
 <211> 431

<212> DNA  
<213> *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB104-038-Q1-E1-D1

<400> 5908

attccccgggt cgacggggta ttgaaactct tgcattcttt acagactgta ctgttttggc 60  
agattgctgg tatgtttgcg ttgtttgcat atgttcgctt atttaatgat tctatttgag 120  
gataggagta ttaaataatgc agaggcattt agtattcaat gttgaataat aattttgggtg 180  
at ttgtttaca gtagaatatg ataaggtttt gcattggttt atactaacct atctcacgag 240  
ttcttgttga gtttgttgtg aatgaagttt ttgataaaaa gaaagaccat gatatgagag 300  
gaattaagga gacgcaaaag ttcaagcttg gggatgccca aggcacccca agatattatt 360  
tcaagaagtc tcaagcatct aagattgggg atgccccggg aggcacnca cctttcttct 420  
tcaacaacta t 431

<210> 5909  
<211> 439  
<212> DNA  
<213> *Triticum aestivum*

<223> Clone ID: LIB104-038-Q1-E1-D11

<400> 5909

taccggtcca gaattcccgg gtcgacgggt acagaagaca gacaaagaaa atgccgggtg 60  
gaaagcttgt tactttatca gatcaagata tattggagat ggttttcttc ccagtcgtta 120  
atgaggcatg cagggtcatg gatgaaaatg tggatgatcag ggctgctgat cttgatattg 180  
catctgtcct tgggatgggc tttcccaagt acaggggtgg cctcatcttc tgggctgata 240  
cggttggagc atcctatata cattcaaagc ttagcaagtg ggctgaaatt tacggtgact 300  
tcttcaaacc atcatcatac ttggaggaga gagcgaaaag cggccgacca ctgggcgcgc 360  
cgaagatggc tcagcaagct ccgacgaggt cacgcatgtg aggttcagca tatggcacgg 420  
tttttgcttg aacagcatc 439

<210> 5910  
<211> 462  
<212> DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-038-Q1-E1-D2

<400>       5910

```
cgccctgcatg  taccgggtcaa gaattcccga gtcgacgggg aactacatag cgcagactga   60
cagtctctcc  tctggcaaaa cataagatta nagcaacacg tgaagtacag aggtactcat  120
caagacttac  atcagaacta gctacatatg catcgggtatc aacaaggggg gtggtggagt  180
ttaactgcag  caagccagct ttgactcagt ggctaacctg aactacgact gcaagcaact  240
cttttgaggt  ggcgcacacg agtccacata ttcaccattc aatacaacac tatggaaccg  300
ctcccgctctc cctacgagaa ggccatccat agcactcaca cttatcttgc gagttttaga  360
ctatccactt  tcacttgtct atgaactatg caaggggtcc aagtttcaca tccgaagaat  420
ccggctattc  gaatagataa tgataaccct gcacgggtgt ac                               462
```

<210>       5911

<211>       439

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-038-Q1-E1-D5

<400>       5911

```
accggtccag  cattccccgg cgcacgggtc actctacttc gacgtgttgg tagcactacg   60
ttatgccatc  aaatctatcg tagacacata gaaagatcaa agaaatgtga gagaagaaca  120
tgaacgacat  gagaacacat gggaatgtga gacatccggg gtagtcgtgg aacgagttgt  180
cattctggca  cttgacggca ccaaactact agatatcgag agagcaagga tactgtggct  240
tcatttattt  tagctgatcg tatattcgca ttcattctgt ttgtcttttt gcaatccata  300
gctcgagagt  tcgaaactaa attctagggc acaagaccct attcttcctc cttttatggg  360
tgggcacgaa  taattttctaa ttctagcaca tcacaatcat aatcttctag catattcatt  420
gttggcattg  tgtcatccg                               439
```

<210>       5912

<211>       445

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-D6

<400> 5912

accggtccag aattcccggg ccgactaagt actcaatctg tacctttata tagtgtgtgt 60  
ttcatcctga ctacaatacc aaggagtgtg gtggcatgtg tactttggat cctcataggt 120  
tgatcccctc caccaagtat gtccacatgc atgtgcccaa cgatggaaac ttcccaggca 180  
cacttccaac ccagccaggg gtattttcat ccaaaactcc aaccgtgcac tacattgtgg 240  
aactttgcta gaaaaataag gcgcactaca tagaggaatg gagggaataa ggtaacatgt 300  
gtttagacg acattaagtc ttggattatg tgttaagtct tcgaaaaata ttcttctat 360  
gcgccatggg ttctcaata tggcaacaca tacctgtac ctcggtaga gctgatgtca 420  
cgcccgata attaagctac agtag 445

<210> 5913

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-D7

<400> 5913

ggtctagaat tccccggcgc acgggttttg caaaaaaaaa ccctgccgtt ttctcgaatc 60  
aaccagagt acaacacaac acttgaatta attctgtctg aatcttcagt taactagaaa 120  
ttctagccac taaatcaagc tcacgtaagc gaccagctag ccctacgcaa cgctatcttc 180  
tccatcgttg tgtttagttc gtgcctgcgt tttagctgat ggatctttca cgttttgatg 240  
aagctgctgg acgaccgtg cgcccgctg aacaggcggc gcggccccgg cgtcgtgaca 300  
gccgcgtacg atttctcta cctgcccatg gatttcaggt gattcatttc atgctcgctc 360  
ttctctcacg gtttgacagg gtgatttctt gcctgcattt tttcttgtgc cgtaccgga 420  
cagaatagtc gcactatcat c 441

<210> 5914

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-D8

<400> 5914

taccggtcta gcattcccgg gtcgacgggg aacgtgatga ccatcttcga ggaggaaggc 60  
gggcggccgg acgccatcat gacctgacg gtgaagcgcg acaacatctg cagcttcac 120  
tcggagacca accccgggca cgtgcggctg tgggagacca aggacggcca gctgacgatg 180  
gtggcgacg acctgaagcc gcgggcggtg ctgacgtgcc cggagaagaa gatgatccag 240  
caggtggtgt tcgccagcta cgggaacccg ctggggatct gcggcaacta cacgtttggc 300  
aactgccaca cgccaaggc caaggagatt gtggagaagg cgtgcgtggg gaagaggagc 360  
tgcgtgctgg ccgtgtcgca cgaggtgtgc ggcggggacc tcaactgcc gggcaccacg 420  
gccacgctgg ccgtgcaggc 440

<210> 5915

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-E1

<400> 5915

attcccagat cgacggctgc aagaccaaga ctctgccgag gcctctccgc gccggcgccg 60  
gcatgcccac cacgtcaggc ccggtggtcg ccgaccttc ttcacccgag ccggaccacg 120  
atgacgcctt tccttcaccc gagccggacc cagatgacgc ccttccttca tccgagccgg 180  
accagatga tgcgggtccg gcgtcgctag aggcgcggga acatcaggcg atggggccac 240  
gtacaccgtt atcgagatc cacgtgctc ctccggcgtc tgcgtgacaa gaacacctca 300  
gcgtacggcc gtgacagtca gcattggccg accaatcgat atgtaagcg gatcaccagg 360  
tgcggaggga ttagcgcatg gccgcgtgct aatgggtgta cacgtattat ttat 414

<210> 5916

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-E11

<400> 5916

taccggtcca gaattcccgg gtcgacgggc gtaccaggtt taccggagat cagggcgaaa 60

gaaaagggca cgctcgtaaat ctgcgaggtt gtaatgtccc tcccagagcta acacattcat 120  
gacatacatg gattgcacga aacaggggaat ttgactagat gctgattatg tagcaaaacg 180  
atcacatctg cgtgtggaag taactgaaac tattgcatag aaaaccatgt ctcaactcgg 240  
gtcatgggac ggtagcgcta tacgatccac gcaaaagttg acgaccagcc aatttacaac 300  
accgactaaa gtgtaaggga aaggcattc 329

<210> 5917  
<211> 150  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-E7  
<400> 5917

ttactactcc ctatagttag tcgtattaaa tctgcagtgt ctctgacggc ccagggtacga 60  
tttcttcocgg acatatagac gtcctcgtag taagctttca aagtatgggg aacttggcag 120  
cagatagtac gtaggaaaga ttgaagtacc 150

<210> 5918  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-F10  
<400> 5918

accggtccag cattcccggg tcgacggggc tctgtgagga taatgaccca atggacgtcc 60  
ttgtcctgat gcaggaacaa gttgttcctg gttgcttccg gcgtgcccggt gctattgggc 120  
ttatgcctat gattgaccag ggtgagaaag atgacaagat catagctgtg tgtgctgatg 180  
atcctgagta ccgtcacttc agagacatca gtgaacttcc cccgcacgcg cttcaggaga 240  
tccgtcgctt ctttgaagac tacaagaaga atgagaacaa ggagggttgca gtgaatgatt 300  
tcctcccagc agaagatgcc atcaacgcaa tcaagtactc gatggacctc tacggttcgt 360  
acatcatgga gggcttaagg aagtgatctc cagttgggtg actgcagatg ctacgctatc 420  
cgccctacgg cttatcaata g 441

<210> 5919  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-F12

<400> 5919

taccggtcga gcattcccgg gtcgacaaca agccataacc atggaatgaa tgccgagcct 60  
 ctcagcattc attcattcac tcaccgtgtt atcacgaagc atcataatac gtcacgcgca 120  
 atgatggagc tggctgcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa acaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagggg gcgccttaaa 300  
 ggataaaagt ttaacaagcg ggaaatgaaa tcaaaaaact cttttaaggg ggccccaaaa 360  
 ttcaattaaa ggggcctttt tttaaaacag tagtatgggg aaaaccgggg ggttacccaa 420  
 tttaaccccc ttggaaaaaa aaccctttt ccaaaggggg gg 462

<210> 5920  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-F2

<400> 5920

cgccggcatg taccggtcaa gaattcncgg gtcgacgggg acgctgctga tgaagtccag 60  
 gctcgccgga tgcggttttg gctcaagctg cctccgcttg ttggctgcct tgccatccat 120  
 ctcaaccggc ggtgacggcg tgtacacatg tgctggtgtg tgttgtgtgc tgagtgtgcg 180  
 cgagtgcgtc cttctgtgca tgccactgcg cagtgtgtaa ttgtgtgcga gtgcatcctt 240  
 cacgcggaag aagtgtgtcc tcaatgcgcc ctcaatttac taacgtgcac ggtgatattc 300  
 actacgcaac cttctccttg tagacgttgt tgggcctcca agtgcaaaag tttgtaagac 360  
 agtagcaaat ttccctcaag tggatgacct aaggtttatc aatccgtggg aagtgtanga 420  
 ataagatggg ctatctcaaa caaccctgca accaaataac 460

<210> 5921



<211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-F3

<400> 5921

cgcctgcatg taccggtcaa gaattcccga gtcgacgggt ccgcaaatgc tatcttcttg 60  
 aatctcatgt aggcattcatc atacgtattc aagccagtcc ggaagggtcga tcccaatggg 120  
 ggagaagggg tctaccggaa tggccgcact gctgtggatg ttgtgcaaaa tgatgggtgga 180  
 tccggtcggg gatatgcaag ccaatcttca ttggcacoga cccagaccta tatataagac 240  
 ggcgggcagc agagaaatta cgggatggaa atggaataac taagtactac ctgatcanac 300  
 tccattactg acctgctcat cggacaatat ccgactacct ctcaacgtcg gcaactctag 360  
 cggagtcaat gtgcaaccat ggccaaggag cgggtggactg ttcgaaggat tgtcccatag 420  
 aagaaccttc tctctgagga cgtatggaag accaacaagc at 462

<210> 5922  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-F5

<400> 5922

agtaccgggc tagaattccc gggtcgacgg ggagaattgt cttatgaatt ctccaattg 60  
 caatttttct gatagactag gagctatatc ttgcgaaac ataaaccgcc gcaaagtaag 120  
 ctttcaagaa atggggacag tggcaccaaa tagtacttgg aaaacattga ggtaccagga 180  
 tcagttcgtg cattcaccag caaggaaaag atattatcca taccaccccg agcattacta 240  
 cagtccccac acaccagcta tgaggagtcc cctggcgcca agtaaaacgc ctttcacatc 300  
 gacaaccgcg aggcgcaaga tgatcttctg gaccgaggca gaggaggtgg ctctgagggg 360  
 ggcagtggcg aagtttgccc cgaatgggga ggccgcgaag gagaagaggt ccatctcgtg 420  
 ggtgcgcata cacgagtact gc 442

<210> 5923  
 <211> 438

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-F6

<400> 5923

taccggtcta gaattcccgg gtcgacgggc tccgtttgat attgatttcc tgcgatgtaa 60  
aaaactagca aaaaatagca actggcactt ggcactgggt ccataggtta gtcccaaaaa 120  
atgatataaa gttgctataa aatgattgta aaacatccaa gaatgataaa ataacaggat 180  
gaatacttca tatattatag atacgttgga gacatatcag catccccaag cttaatcct 240  
actcgtcctc gagtaggtaa atgataaaag aaataattta tgaagtgcga ttgctagcaa 300  
agtgcataag tttgatcaat gataatttca attacttttc ctagcatcat aacaacaatt 360  
ctttcttatg aaagtctca tggttatagta gcaaccaatt cacatgtaa ggttcaaaca 420  
atgaattctc ttgaaact 438

<210> 5924  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-F7

<400> 5924

taccggtcta gaattcccgg gtcgacgggg aatttcaagt ttcccctaga ttaaatttat 60  
tttcttacca attgtccaag aaaaagctac aaaaagttag acctattcat cttttttgtc 120  
caagccagtc tgagcctttg caattttctt ttcattgttt gcattattga attatcggtt 180  
gcatcgtcgt gtcgagttgc tggctctagt gtctagttcg tttagagttt cgagttctgt 240  
tcacattagt cacatgcgcg ctgcatcgtt atcctttccg ctgtccacca ccccatccat 300  
caatttcac cacgtgctac ccatagttca ttgtcacaat catagttgag gtcgttcaca 360  
tcttcgcttg atccaatctg catcttatct agtttgtctt ggaaagaggg agagaaaaaa 420  
agacag 426

<210> 5925  
<211> 270  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-F8

<400> 5925

attactacac cctatagtga gtcgtattaa aatttatattt cctatcagtt gtccagaact 60  
gtgctatagg aagttataca tatgcatcat ttttgtccag accaatctga gccattgcaa 120  
gtttcttttc attgtatgca tgacagaatt atcgggttgca tcgtcatgtc ctgttgctgc 180  
tcttatgata tagctcgatt acaagttcct aattctgttc agactactca tatgttacag 240  
cagcatcgtg atcctttatg atgtgcaata 270

<210> 5926

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-G10

<400> 5926

accggtccag aattcccggg tcgacgggtg ggataagaat gtcgaaaggg aataccggta 60  
tttactacc atgactatac ccgacgcaa gagagctacc gtgaacgtca ttgcaaaaat 120  
gagccatggg tacacgctaa gcatgtgaca caatgctttt tcataaccga cccaagcaat 180  
cccagccgtg ttgtcgtgag gagaggcaaa aggaacatca ttggaatgga tggagtctcc 240  
aacgaggagg actacgacca gtacggcaac cctatgaggg aagatgacga tgacgatgaa 300  
gtatacgtca aaagaagaat cagtactaca ttacctaaga aagatcatac tccatggaaa 360  
aggaaaagcc acaatgaagg 380

<210> 5927

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-G11

<400> 5927

cgggtccagaa ttcccgggtc gacagggatc atcaactttc ctttttacac tttttccttt 60  
ggcaagcact ttgtgttgga gtgataacct gcaagtatac gggatcgcaa cagttttcga 120  
aaagtaagag tgtcgaacct aacgaggagc taaaggtaga ataaatattc cctcaagttc 180

tatcgaccac cgatacaact ctacgcacgc ttgacgttcg ctttacctag aacaagtatg 240  
aaactagaag tactttgtag gtgtgatagg acagatttgc aagataataa agagcacgta 300  
aacataaact aggggctgtt tagataaaga agcaataaat tacatattag tagagagctt 360  
tttgttacga, gaaaagttat ttgtccaagg caatcgataa ctagaccgg 409

<210> 5928  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-G12  
<400> 5928

ttcccggttc gacggggcta ttggtcagct tgcaaggctc ctgtgggaag ctgagaagtc 60  
ggggcactac cagtacttcc tctgtgtcac tggagaccac tctactcctg ttgagtacgg 120  
agaccacagc tttgaacctg tcccgtttgc aatatgccgt ctgagagatt tcgtgggagc 180  
gattggggag ggcaatgtga tgaatacccc ccttgacgat ttcccgctgc ctttggttaa 240  
atccggagaa gatttaactg atgattcaga accagcggaa cacaagcctg gggagcgtaa 300  
agcttttagc ggcgatacag tgtgtgaata caccgagatt gctgctgcaa ggggctgcct 360  
tgggcggttc cctggaagtg agatgatggg catcatcaag aagttcatga aagcaaagaa 420  
cgattaac 428

<210> 5929  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-G3  
<400> 5929

attcccggtt cgacgtttgt cgatcatatgc tgggtgtggaa atgtttcact atatgaattt 60  
gctaattctc gtctgacaaa gtctcgtcta ctactacact acttgattaa tcaaacaaaa 120  
aatataaaaa aatcaatacg aattaccgtg taaaatccaa cggatatagga gttagatgag 180  
acatagttat ttctcgagct agactagagc tagacacacc cctttactgt atatattctt 240  
tgggtgacgt tttgtttttg aagtctgatc ttactcagc tcaactattg gcatctgggt 300

gtgggccggt ttagtcattt ctctgccag tgtcaattta ctgttacctt taagccccggg 360  
 cccgtgtgat gaatggtagt gtatcctgga acctctctgt tgttcacatg catttttctt 420  
 gagatataaa tattgataaa cttt 444

<210> 5930  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-038-Q1-E1-G5  
 <400> 5930

taccggtcta gaattccccg gccgacgggg agaagtctgt ccttggtaga gagctttcaa 60  
 gggcacttgg ttctaagacg cgtcctccga attgatcaat actactggcg agtggctgtt 120  
 gtctgtgttg ttgtaacctg taagtccacc attatgaagc ttctgcttgt ttacgtgtc 180  
 tgccttgtct atatgtgtaa ggctacaagg aacgaaatca atgtacatat gttacccta 240  
 tgttaaataa agcagggttt gccactctaa aaaaaataaa aaatataaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaataaaaat caatattcaa aaaaaacta aaa 343

<210> 5931  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-G6  
 <400> 5931

taccggtcta gcattnccgg gccgacggga ttcttaacaa gaagggagtg gtcgtgttgc 60  
 ctgatatcta tgctaagtct ggtggtgtga tcgttagcta ttttgagtgg gttcagaaca 120  
 ttcaaggatt catgtgggaa gaagaaaagg tgaacatgga gctccataag tacatgaaca 180  
 gcgcgttcca gaacatcaag gccatgtgca agtctcaaga ttgcaacctt aggatgggag 240  
 cattcacctt gggagtgaac cgggttgctc gcgccaccat cttgaggggc tgggaggcat 300  
 gaggaattcc agattcctta tcgaataatc catgccccgac accgtggtgg atgacagttc 360  
 ttatatccac catcattgat ttggtaaatt catcataagt tgccggcatg ccaggagtcc 420

aattgaaata attttcgggtg tacatgac

448

<210> 5932

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-G7

<400> 5932

taccgggtcaa gaattccccg gtcgacgggt tctgttattg ctgcatagtt tgcttgTTTT 60

gatgaaacta tcgatttcta ttagtggatt aagccatgga gaagttatat tatagtagct 120

acaatgcaaa catcaaatat gaattgggtt gcaacagtac ttagagtagc gatttgcttc 180

attgtactaa tgatcttacc aaactttcta ttaagttttg tgtgattgat gttttcaagt 240

tttcggagag atcacgatgg atgaaggaat aaggagtggc aagagcctaa gattggggat 300

gcccaggca caacaagtaa atattcaagg actcccaagc aaccaagctt ggggatgccc 360

cggaaggcat tccctctttc ttctaacgat catcggtaat ttcacttgga gctatatttt 420

attcgtcaca tgatatgcgt aaatc 445

<210> 5933

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-H1

<400> 5933

cgctgcatg taccggtcca gaattccccg atcgacggga gtcagtgaag tctcaagccg 60

gaaggacaag ctctgtacac acaggtatac tgtcatcgaa agaaagacag caaacacgta 120

catatgacgt ctcaagcccc acggacaagc tctgtacggg cgaacctgag cgaaagatca 180

gttatactgg agatggatca tctcggtccc agaacccttg ctgacaattg tctcagcaca 240

ccgatcgatg ttcttgccgt ctgtgactta tactgtactc gttgtgccgg tctgtttctg 300

tatcctgcgc aagtataatg cgattttgga tggctcctta ttatacatgt gcaaaatatg 360

gcatacttgg cgtaacagg tgcacacac cagtcatagt tggtctttct ttgttgttgt 420

ctcagctca 429

<210> 5934  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-038-Q1-E1-H10  
  
 <400> 5934  
  
 ttcccggttc gacgggggag aagaggccgg acaaggtgac cggattgatc agcgcgaggc 60  
 aggccaaagga ggccgagcgc agggaggccg aggagcgcaa ggccgaggag gaggagggcg 120  
 gggccgcctg ggccaagaac aagcacgtgt atcagttctg atcgatcgcc gccggggcgcc 180  
 gcgcccggcc gtgcatctcg cggcagatgg tgttctgaac ggaaaaagtt cgcgagagat 240  
 gatggtgtgc atgtatccac cgctcaccgt cacttgaga ttcgtgctac gttttcttgt 300  
 tttgtcaaaa gcttgtcttg tttcagagtg ttgcatgatg tttctctttt taaaaattat 360  
 cgtgatgttt cgatgtgtat atcagtaaaa taagagagta ctgagttcaa ataaaaatta 420  
 aaattagaga gtactcgac 439

<210> 5935  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-038-Q1-E1-H7  
  
 <400> 5935  
  
 agtaccggtc tagaattccc gggtcgacga tcaggctgac gggccatcgg cgtcgcgccg 60  
 cccaatcctg gtcttcttcg ccggcgggtga ccatggcccc gttcggccac tgctcctgca 120  
 gcactggaag ggcaaggaca ccgacgtgca ggtgagcgag tacctgcccc ggggtgtgtc 180  
 gtacatcaac gtgatgcggc ggagcaagtt ctgcctgtgc ccagcgggt acgaggtggc 240  
 cagccccagg gtggtggtgg aggccatcta cctcgagtgc gtgccggtgg tcattggcga 300  
 cgactacgtg ctgcccttca gcgacgtgct caactggccc gccttctcgg tcggggtcgc 360  
 catggcggac atacccaacc tcaagaccat cctcgccgcc atgtcgccgc ggcagtacat 420  
 acggatgcag cgccgggtga ggaccg 446

<210> 5936

<211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-038-Q1-E1-H9  
 <400> 5936

accggtccag aattccccggg tcgacgggta gctccatgcc atgctttact ttgccatgtt 60  
 caggctcctgt agcatatagt tttcatgctc cgaagagggc tacctgatct gaaattccag 120  
 acaagtgtta atttcactaa gtctgaaatc tgtttgcaa atgcattttt tccatgcttg 180  
 tttgaacctg ttaatggatg aattggccgt agctcagtgc tagacttttg ttaagcatca 240  
 tgaatggatt cttgccatgt attttggtgc catgtttggg tgtttagca tgttcatctt 300  
 gttgcattta gatggctact tgctgtaa atcgcagaacgt ggtcatattg gaatcgcttg 360  
 ccatttcgaa accgtaactc cgattccggc attctttata tcgttttcaa gcgatttcac 420  
 ctcatatttc cagtgggtaca c 441

<210> 5937  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-B6  
 <400> 5937

ccgggtcgac ggggggtccg aagaagaaac accaccaagc accaccccg tgtagtagaa 60  
 atagaaacaa gtgcttcgaa ttgcgatccg catccgccga cacgatgttt ctacagagga 120  
 cggagtacga ccgtgggggc aacaccttct ccccgagggg gcggctgttc caggctcagt 180  
 acgccattga ggccatcaag ttggggtcca ctgcaatcgg cttgatgact aaggatggtg 240  
 ttgtactggc tgttgagaaa cgtgtcacct caccgctgct ggaaccaagc agtgtggaga 300  
 aaatcatgga aattgatgag catgtcggct gtgccatgag tggccttatt gctgacgcca 360  
 gaacactggg tgagcatgct cgtgttgaga ctcagaatca taggttctca tatggggagc 420  
 caatgacag 429

<210> 5938  
 <211> 370  
 <212> DNA





<400> 5940

gggccagaat tccccgggtcg acgggggacgt ttgagatttt gagttcatga atttttccgt 60  
ttcctaaggt gtttcgggcta cttagggacg agtctccatc atcttggttt ctacatcaag 120  
aacaccgcta ttcattcatcg tcggacggta acctccatat catcttggtta tcgtggtaac 180  
cctccattgt atattcccct tgccattgca ttgttaacct ctageccatt ttgcgttact 240  
tgcctatcga gactagccat ttgagtattg ccggcaacgt tacttggtgca cattactgat 300  
catacttccc atagcataca taccatatca tcgtgggtgca tatattggta tcatatcttg 360  
tgtcacaagt ttgttcccgc atatacacia ttgctatctt ggtttgtgca ttgtgcaaag 420  
ttggccatac acaataa 437

<210> 5941

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-D6

<400> 5941

tccccgggtcg acgggggttgg cgtaggtgat gtctgtagta ttttcgtcct cgccagtcac 60  
acaattecta gggttatggga ctggatctcc atttccaaga ttcttagctg ataagtatat 120  
tgtgcggaat aatctctact gaatgacaga tccaagcaat ctggatacgc catgggacaa 180  
agttgaagct ttgtacatca cttctctacc tgtttattaa tgtgtcttca tgtttggcag 240  
tgatctgggt ttccatgtac ttgatagatg cattccttat ctttatgtgt tccatctacg 300  
tagatgtgtt tctgcccata aatgtattta tgagcttgct ccgtttttac tgctttccta 360  
cgtcaatttg aaaagtaccc ttatttcacc taataagggc tatacatgca tttagacgag 420  
tgcacatttt ctataaacat aagcattgtc 450

<210> 5942

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-D8

<400> 5942

ggtccaggat tccccgggtcg acgggggagg atgacgttgg gttgctgttc agatacatta 60  
 cattgcttca gacctctgga actccgaagt ggatttttga tgagcttcta gccatctgcg 120  
 agacgggatt ccactatcga gacaagagcc ctctagcaa ttatgttgtc aatatttcgt 180  
 caaacatgca gatttttcca ccagaagatt ggctgatcgc gtcgtctgta ccatcaaagt 240  
 tttcaccaga tgctattcag aagggtgctaa atgaattgac tacagagaat gttagaatat 300  
 tctgggagtc aaaattatth gaagggcata cagactttac agaaccttgg tatggtacgt 360  
 catattgtgt tgaagcagtg cctccttcca ttatgcagaa atgggtagaa aatgctccca 420  
 acgaagattt acacctgcca aaacctaata tcttc 455

<210> 5943  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-E1  
  
 <400> 5943

taccggcccc aaattcnega gtcgacgggc acagagagcg gtcgtagcgc ctcaacagcg 60  
 aaggcttgag gggtcagtac aacgggcaaa gctgtaataa tcacttggtg gtactttttt 120  
 cctggcattt ggtcctctga ttattgtcac ggtttctcta tttgctggtc tttatctgta 180  
 ttttgggcaa agctttgtac acgacgggag caagaaacca gtcgcgccac caccatacat 240  
 tgatccatat gagctactgg aagatgatag gatctcccg cctcccttg atgtgttctg 300  
 aatctccacg acaaaaagga tagtaatttg tagatagctc aaataatttt cttgttttac 360  
 tagatatgta cctgtaaattg caatagctgt anactgttat tatccggaaa t 411

<210> 5944  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-039-Q1-E1-E10  
  
 <400> 5944

gggacgacgg gccaccatca attactgcgg tgctagcttc agactcgatc cagagatacc 60

tatgttgact atcgctatgt agagagggtta tatgctgaga gtgtacatta tgtgtcactc 120  
 actcgtgatg ttctggaatg acggttctgt cgtatcacag agttctgcgt cataagtatc 180  
 ctccgagtga gcctttaact gatcatagtt caggtgatgt tgatcttgaa agagctagac 240  
 actctgaaac gtcccaatag tgaaagggat g 271

<210> 5945  
 <211> 72  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-E3  
 <400> 5945

caaaagggttc aagcctaagt tacccttgaa ggcaacgtca tactcctcca atatggtcac 60  
 caaaattcaa tt 72

<210> 5946  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-E5  
 <400> 5946

ggtcgagaat tccccgggtcg acggggaagt tggtgggagg tggctcgcca aattcaagtc 60  
 tgtcacctaa gacggaggac gtgctgaacg acctggacgc tgcagatcaa catggacatg 120  
 gacttttcac tttctagagt aacacactga catggcatag tagtaggcga cggttctttc 180  
 attataacgg cttataatta tcatcagact catactatta tgcaaagct tcctatgatt 240  
 tcattgggta aattgtataa ttgtgacagg ttcatatatc aatgtcaaga aagagctgag 300  
 caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aacggccgct ctaaaggatc caagc 355

<210> 5947  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-E6  
 <400> 5947

gggccaggat tccccgggtcg acgggtctcc aaactacact ataacagaga agtttgcact 60  
tattatggat tatattgatg gggtgccttt taccgttgca catgatgatt ttgatgaata 120  
taacatgcat gtgcttgctg ctctacttg caattattat gagagaggaa ctacatctcc 180  
acctctttat gtttccaaca cgataaaatt gcaagaaact gcttatgcta tgtattgtcc 240  
tttacttgat gtgcatgaat tggtctttta tgatatgctg atgcataggc agagagttag 300  
acttcgtcat tgcattgatg actttgcttt gtgctcataa ctaaatgaca aatcattgtt 360  
aattaaaatt ggctttgaca taccttgga tccgggtgga ttcgttactt gagcacttta 420  
tgcctagctt aatggcctta aagaa 445

<210> 5948  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-E7  
<400> 5948

gggccagaat tccccgggtcg acgggtatct ttttgagaac ggtggtgaat tattttgtag 60  
aaattgctag tctctcatgc ttcaattata tctttttgag agtcttttat aacagcatgg 120  
tattttctat ggttataaat tggctcctaga atggtaggca tccaagttgg gtataataaa 180  
aactatcata ggaagtgaat tggatgctat gatcaatttg atacttgata attgttttaa 240  
gatatggagg tagtgatatt aaagtcatgc tagttgggtg attatgaatt taaagaatgc 300  
ttgtgttgaa gtttaggaagt cccgtagcat gcacgtatgg ttaaagttgt gtaacaaatt 360  
tgaaacagga agtgtacctg gcttgtgcat ccttatgact ggcggtcggg gacgagtgat 420  
ggtcttttcc tacantctac cccctagga g 451

<210> 5949  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-E8  
<400> 5949

gggccagaat tccccgggtcg acggggtggt atcagttttt aggttgctcg gtgagaattt 60

ccagttttcc tagattagat ttattttctt acctattgtc caagaaaaat ccacaaaaaa 120  
gagttagatc gattcatcct tgggtccaagc cagtctgagc ctttgcaatt ttcttttcat 180  
tgcttgcata gttgaattat cgggttgcatc gtcgtgtcga gttgctggtc ttagtgtcta 240  
gttccttttag agttttgagt tctgttcaca ttagtcacgc agccgctgca tcattatccc 300  
atctgctgtc caccacccca tccatgaatt tccaccatgt gttacgcact gtttattgtc 360  
ataattatag ttgaggtcac tcacatcgtc atctgatcga atctgcatct tatctagttt 420  
gtcttggaag gagggagata aagaag 446

<210> 5950  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-F11  
<400> 5950

acgcctgcca ttaccgggcc gaaattcccg gatcgacggg agtacgttta acaccaatat 60  
aaataaagaa tgtgttcatt acagtacctt atgtggtggg tttgcgttct tgcactaacg 120  
gtgcttatga gatttcctgt tgagttttgt gttgtgaatt tttcaagttt tgggtaaaga 180  
tttgatggac tatggaataa ggagtggcaa gagcctaatac ttgggggatgc ccatggaacc 240  
ccaagatatt caagaatagc caaaggccta agcttgggga tgccccggga aggcaccccc 300  
tctttcgtct tggtttatcg ataactttac ttggagctat atttttattc gccacatgat 360  
atgtgttttg cttggagcgt cttgtatgat attagtaatt tccttttagt ttaccacaat 420  
catccttggg gtacacacct tttgggagaa atccacttga ttggaattt 469

<210> 5951  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-F2  
<400> 5951

tgcagcatt taggacgaag aagacaatcg accccaagg gaccataatg tattttccta 60

ngatgtctat acttattggt ttgatcaata gatttgaggc cttctgcaaa caataaaact 120  
 aaaataggtc attgatgcat ggtggccgtc ggagagtacc tcataataaa ggaaaataat 180  
 tccgtctttg aaccaaagct aaattatcgt atttcggatt gacgtaaaca taaggaaata 240  
 gtcggtatct gaaagtacca ttcttctccc gagctcaaat gcacttgtca tgaacagtan 300  
 aaaaataaaa attaagttaa aatataaaat tttctgattt ttcttgacag taaacattgt 360  
 tgaatgtttt acatacgtgc aattttcatg aagaaaaaac attcccagtg ctctaaaaag 420  
 aacaaagctc caacat 436

<210> 5952  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-F4  
 <400> 5952

tcgacgggac catgggccgc aggcaggcaa gtctgggaac cctcgttccc agaatgccga 60  
 caaacatgtc cgtccattta tcgacctttt tttcattgag ataacttcaa aaaatgtaga 120  
 acttatcaaa aacacaaaca actttgtatg gtgccttgca ttgttcatac aaggatcatga 180  
 acttttgagg gggggggggg attttaaaag atgtcaagaa acaaagtgtc ctcagactga 240  
 gtcttctggc ctaccgggac accctccgtt gaatattagc tattttttaga cattactaaa 300  
 atgatcccaa cttttacaag cagggtgggca tgtccatggt aagcaccaat gtgaggtttg 360  
 aacgatatct gacacgtct gtaagttgag atagtttagc catttatcac cattttgata 420  
 gagaaaactc cagagaatg 439

<210> 5953  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-F7  
 <400> 5953

acgcctgtcg gatacgggtc agaattcccg ggtcgacggg ggtgctcgag aggtccacga 60  
 gacagggggc gcgcctagta gggggagggg gggcgcccc ctatatcccg ggctcctcga 120

gtatcttctg acatggactc caagtctcca ggatgataat cttccaaaaa aatcacgttg 180  
ctgaagggttt cattccgttt ggactccgtt tgatattcct tttcttcgaa atactgaaac 240  
atgcaataaa acagcaatat ggttgggcct ccggttaata ggtagtcca aaagtaatat 300  
aaaagtgtat aataaagccc ataatcattc aaaacagata ataaaatagc atgaatgctt 360  
cataaattat agatacgttg gagacgtatc aaacaatcaa aaattataga t 411

<210> 5954  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-F8  
<400> 5954

gggccagaat tcccgggtcg acgggatatt tattatagta attaaagaaa aaggcaagtt 60  
agttagggtg tgccacagaa tgcaatgctc cttcatcat catcatcatc ataatgtgat 120  
cagagctgag acctgatcga tggcacatat tagtacgtag atcagtactc ctgctcacac 180  
aagtccagta atgagatgcc tcggttgctt cgcttcaaaa aaaacaaaca aaaaaaaaaa 240  
aaaaaaagat gaaaaaaagg taaaaaagtt aaaaaagga ataataaaaa aatgtaaaat 300  
aaagccacaa taatcattca aaatagacgg ttcagctagc atgaatgctt cagtcgatta 360  
tagatacctt ggagacctag cacacaatca ggtattacag atacgacggg aacgtatcag 420  
catcccaaaa g 431

<210> 5955  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-G5  
<400> 5955

tacgggtccag aattcccggg tcgacggggt cgatacatct ggaagtgggtg tcaagttaac 60  
tgtggagcct gcagctgggtg gagagcagac tgtcattgag gctgatgttg tccttgatc 120  
tgctggcaga gtcccataca ctgctgggtat tgggctggac gccattgggtg ttgagacaga 180  
caagggcgga agggtccttg ttgacaatcg ctttatgaca aatgttaagg gcgtatacgc 240



gattggagat gcgatacctg gaccgatgct tgcacacaag gctgaggagg atggtgttgc 300  
atgtgttgaa tttatcgcg ggaaggaggg ccatgttgac tatgacactg tacctggcgt 360  
ggtgtacaca caccagagg tggcctccgt tggcaagacg gaggaacaag tcaaggcatc 420  
tggtgtagcc tac 433

<210> 5956  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-G6  
<400> 5956

ggtccagaat tcccgggtcg acggggcagg ctaacatata ggtgtagcca tttttctgac 60  
ataaaaataa cagtaaagaa gaccaagtta acatatgtat caggttgcggt ttacctgatc 120  
agaagaaaca ggcagggttta caatgttttg tggtgcacat tgctactttg gtaccttgat 180  
gcgaagtaat aatgtcttta agctttatta gcaccggaat aacagcaaca aaagacagtt 240  
tttaccactg cacttgacaga gttctctgaa cttctgataa ccagacatca gggttctcta 300  
aaagaacaga cattagctaa cataattcag cacaagaata acagttcaaa atgccaaaag 360  
agtattagta caccataagc aagtgttggtg tcgttagcag cgtcgaagtt tctatttctg 420  
aacttgacaga acttcattgt catgtaattc agattga 457

<210> 5957  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-G7  
<400> 5957

ggtccagaat tcccgggtcg acggggatca gcgcctcacc gtcggaggag aacatgcgct 60  
acttcaatgt catggctcctt ggccccgcgc agtctcccta cgaagggtgga gtcttcaagc 120  
ttgaactttt cttaccogag gaatatccga tggctgctcc taaagttagg tttctcacia 180  
aaatatacca tcccaacatt gacaagcttg gtagaatatg cctcgacatc ctaaaggaca 240  
agtggagtcc agctcttcag atacgcactg ttcttctgag cattcaggca ctgctgagcg 300

ccccaacc agatgacct ctctcagaaa acgtcgcaaa aactggaaa tccaatgaag 360  
ctgaagctgt tgagacagcg aaggaatgga ctgctatgta tgccagtggc gcatgacagg 420  
ctaacgctgt tatggatgta ataactgt gtc 453

<210> 5958  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-G8  
<400> 5958

ggccagaat tncgggtcg acggcgcc aaaggatata atccggtgt ctggatacct 60  
cctaaccag gactccctca gtagccctg aaccaggctt caatgacgat ggtccgacg 120  
cgcagattgt ctccgcat gcaaggcggg ttctctctcc gaatacttca tagaagattt 180  
tgaacacgag gatcgtgtct ggctctgcaa aacaagttcc acatacaacc gtagagagaa 240  
taatattttc acaaattctaa tctgccgacg cattctgcag tgtgacatca caccacagcc 300  
aggttaccat tcaaactggt ttccacaacc aacctcagcg tgtttcgga ggcggtttcc 360  
ttggcacgtc ttgtcgaagc agagatcgtg tcccttatt acgggattcc tatcaatacg 420  
gacatgggta acccaaccgc gccatcaatt actgtcacat ccct 464

<210> 5959  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-G9  
<400> 5959

accgggccga aattcncgga tcgacgggga gcatgcagtc gccactgaca ccacggtgct 60  
ggagctctca agggcctgca gtttcatcat gctctcgcc tacgtcgctt acctcttctt 120  
ccagctcaag acgcatcgcc agctcttcga gccgcaggag attgagggcg gcatgatga 180  
tgaggaagag gcggtcctcg gctttgggag cgcgctcttc tgggtcatcc tcatgaccat 240  
cataatcgcc gtgtctctcg agtacgttgt cggcaccatc gagccgacct cgcagtcgtg 300

gggtctctcg gtgagcttca tcagcatcat cctgctcccc atcgttggtta acgcggcgga 360  
gcacgccgga gccgtgatct tcgccctgaa gaac 394

<210> 5960  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-H11  
  
<400> 5960

cgctgcctg taccggctct aaattcncgg atcgacgggt ggaccagaaa agattgataa 60  
gccgcccgt cagccgcctg ctgaaccgcc cgctctgcct ctgggcgtgt cctgtcctga 120  
tcaaccaagt taggggctcc atcacgcgtc gggatcatgcc cgcacgggtg gtcacggcgc 180  
cgggcgttgc ttgaaactgc agccgagtc atctgcctgc tatagctcgg gctccggctt 240  
gggcgagggg tcgaatgaat cctgtctcga ctataagaat atgcttcctg ctgtgccaga 300  
gccgtctgaa gaagttctgt gacccttcgc gtttcgaccg ctgtcggaga gtcgccttcc 360  
actgggagag ccgccaatcg tgccgccgca gcaatcatgt tctccaacgg gttagaataa 420  
tgaccgggag gtgtcggtac atac 444

<210> 5961  
<211> 372  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-039-Q1-E1-H5  
  
<400> 5961

ggtccagaat tcccgggtcg acgggtttgg tgaaaatccc aaacgatgca tacattgcca 60  
cagaatacat gcgacagctg aacaatcatc tggatcaaatt gttcgccgtg ttgtgtgagc 120  
atatagcact tgtggccact ttgtcatgac tccagcacat gctgagagtt tgatgctaca 180  
acaatttata tgagactaca tggtacaata cttcagtact atcgacttat tatgagattg 240  
attcagttga cactaaaaac taggttggtt aatgttgcca aaattactgg atatggctcg 300  
tggaattca aggatcgcct ttattcatat gtaatcatca tctccgtgaa tgcaagagca 360  
attgtgaatg tc 372

<210> 5962  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-H6  
  
 <400> 5962

ttcccgggtc gacaaaaaat gaagggcaca aaattgaggg gcaccatcct ggctctctgc 60  
 tacttctcgt ctggatagtg tactcaacgc cacacaatac tataccgtat gcaagcctgc 120  
 aggtagctag ctagcctgag agagacagac cgaatccgac agatatctca gaagaatttt 180  
 ctttacgtgc ccaatatcaa tatgggctct gaaatgaggg taggggcgcg tttgttacct 240  
 gcatcgtttt ttgccacttt gcatacttgt cccaactggg cctggctgag catatacagg 300  
 ataaaaacca acatctgcat gttgattggt tacctgcatc ncctccagcc taaacgtgct 360  
 aaaacgaaag gcctgatgtt tgcttgcgga ctttgtttga ggggaaacac angtccggtt 420  
 gtttggttat gtacaggaca gttgtgtggt aacctccta 459

<210> 5963  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-039-Q1-E1-H7  
  
 <400> 5963

ggtccaggat tcccgggtcg acgggatgca cgagttcttc gtccacttcc acggacccaa 60  
 agacagtatt taccaggggtg gtgtgtggaa ggtcaggggtt gaactcaccg aagcttacct 120  
 ttacaaatcc cttccattg gttcaccaa caagatctat caccccaatg tcgatgagat 180  
 gtctggttct gtctgcttgg atgtgatcaa tcagacatgg agcccgatgt ttgaccttgt 240  
 gaatatcttt gaggtgttcc tgccccagct tctctgtac ccgaaccctt cggacccctt 300  
 gaacggcgag gcggcttcgc tcatgatgcy cgacaagaat gcctatgaaa ataaagtcaa 360  
 agaattattgt gagagatatg ccaagcctga agatatatcc cc 402

<210> 5964

<211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A1

<400> 5964

```
acggtccaga attccgggtc gacgggagaa ggtaacacca aaggaaaaga aaacacgtac 60
acacaaagtg aatatagaag tgttcaagac tgtgaagcgg gaggttcctg gtatatctac 120
gttcattgta cttagttaag ttgatgttac tgttggtttt tctcgctgcc gccatgccat 180
gagcaggcga ggcaggcagc ttctcaaact tgtgttggtg taacttgat gatgggagct 240
taagtacatt actttgtttc gaaaaaaaaa aagagaagag aaaaaaaaaa agcggccgcc 300
caaaaggttc cagccttact tagccttgca tgcaacttca tagcccttca aaagtgtccc 360
ccaaattc 368
```

<210> 5965  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A3

<400> 5965

```
taccggtcaa caattcacgg gtcgacgggt cctatgagaa ccccttttaa tagtatggat 60
ttcctacaac caataaatt aaatgcatcg gaaatgccgc cttegtcttt ttccatctgg 120
aggggtgccc aaccatcttg tgcctaataa agtatacatg cgtagcttag gcacgcgttt 180
agtctgtaag ttgcattgtc atcaacatca aaacacttaa ggaggaaaat gcccttccag 240
taatgtgcct tgtaggcct ttggcgttgg aaccaagtc cccacctata tttcaagata 300
aagcatgctt atgtttaatt cgtgacaaat atgtgttttc aaattaacgc aacaaaaaga 360
atgttcaata aaagactaga tgcttttctt cacagcttct tatgccatt ggtccatcaa 420
tttaccttgt ccaat 435
```

<210> 5966  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A6

<400> 5966

tcaagaattc ccgggtcgac gggtcaccac atgcttagat agccgattac attgggcgaa 60  
gactaatgat caacatttaa cttgacaatg cgtatTTTTT ttagaagaac agggaggctc 120  
ctccccggtt ccattatcaa atgaaaccta aagtgtctta catcagctca ctgagaggag 180  
cagttcaaag gaaggactgc ggcgaaaccg actcaagttt aatgacaagc ttacagaatc 240  
aaaagcggca aagacacggg ccataagcgc ccacacacgc actacatggt ttctaagtgc 300  
acttgataat gcgtatgtcc aggtgaacct ccttgagacc cccgtgcacc gagtcgggtg 360  
gtaaaggatg gaattgatgc catgtgtttt ccaagtccac attggcgga taatc 415

<210> 5967

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A9

<400> 5967

attccccgagt cgacgggaga ccataatcat cctatgcctc ctacggattg ataaaccttc 60  
ggttatccac ttgagggaaa tttgctactg tcctacaaac ccttgactt gcaggcccaa 120  
caacgtctac aagaagaagg ttgtgtagta gacatcaagc tcttttctgg cgccgttgct 180  
ggggagggtga gtgcttgaag gtatatcttt agatcttgca atcgaatctt tttgtttctt 240  
gttttatcac tagtttagtt tataaaagaa aattacaaaa aaaatggagt taagtttgtc 300  
tcatacgctt tgtcttttta atatctttcg tgagtttgat ggaaaggaaa attgtgctca 360  
agtt 364

<210> 5968

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-B7

<400> 5968

tccccgggtcg acggggacag cgacaacaag gaacagttca agagaagaga agatggcttc 60

ttcttctctcg tcggtgctgc tgggtgcggc ggtggtggcc gctgtggtgt gcggcgcgca 120  
 cggcatcccc aaggttcccc ctggcccaaa catcacggcg tcgectgcga gctacggcaa 180  
 caagtggctg gacgccaaga ccacgtggta cggcaagccg acgggcgccg ggccaagga 240  
 caacggcggc gcctgcgggt acaaggaggt ggacaaggcc cccttcacg gcatgacctc 300  
 ctgcggaac atccccatct tcaaggatgg ccgcggtgc ggctcctgct ttgagctcaa 360  
 gttgcacaag cccggggcct gc 382

<210> 5969  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-B8  
 <400> 5969

attcccgggt cgacggggtc cattagtttc gggcccaatg cgtggtagta gctgaatcat 60  
 ggatcacaaa cacagaactc agttcctgag gacggctgca atgagacaac ccaccatgta 120  
 ctctacatg gcctctcacc gctaccttta ccaaaacgtg ttcacacact tagctcacac 180  
 atagtaggac atgttcacac gcctctgatt catccccgat gaatcagacc tgactcaact 240  
 ctaagcagta gcaggcagga caaacaaca tgaatgagta ggcacatcag ggctcaaaca 300  
 actctactc atgctagtgg gtttcatcta tttactgtgg caatgacagg tcatgcaaag 360  
 gacaaagggg ttcagctacc gc 382

<210> 5970  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-C6  
 <400> 5970

attcccgggt cgacgggctg aactacgtac ttaagtagtc attgtcgggtg gtaccttaag 60  
 gtggtggttt gttttcttat actaacggag ctcatgagat tttctgttga agttttgtgt 120  
 tgtgaagttt tcaagttttt gggtaaagat ttgatggatt ttggctgaac ttcgtactta 180  
 agtagtcacg gtcgggtgga ccttaagggtg gtggtttgtt ttcttataact aacggagctc 240

atgagatttt ctgttgaagt tttgtgtgt gaagttttca agtttttggg taaagatttg 300  
atggattttg gaataaggag tggaaagagc ctaatcttgg ggatgcccaa ggtaccccaa 360  
ggtaaaattc aaggacaacc aaaagcctaa gcttggggaa tgcccggaaa gcatccctc 420  
tttcgt 426

<210> 5971  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-C8  
<400> 5971

attcccgggt cgacggggaa gataagatta ggaaggttca ggagctgaag gcgaaagcga 60  
aggctgcttt ggagaacggc gggtcgtcgt gcatgaatct ggacaagctg gtccaatccg 120  
tcgtctgaaa attagcgcag catgtcggcc cagaataaat tctgctgctt tcgttcattg 180  
atggacatat tggggccggt tcttgcttga ttggaagatc aagactatgt tgcaactgtt 240  
gtttagctgc aactgtgtct catgccaaact cagtctacaa gtctcttggt tagcgtgcc 300  
tgccctgtaa aaaaagataa cgaagccggc aggtgctcta ccatttgaat aaggaaagtc 360  
tagagaatgt ttacaagata gctgcttcga gaaccgacag aaaaatcaca caaag 415

<210> 5972  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-040-Q1-E1-D1  
<400> 5972

gggtcgacgg ctctatgaca tgaagcacac cacacagttc tgcaaaattc cagctcgggtg 60  
gctccgtact tcgagcaata caagaatatt ttacgctcgg acaaccggg gaagcctgaa 120  
tcctggatta gaaaggccca catggagact ttcggcagtt ggttgcgaaa acatttaatg 180  
aatgacaatg atgttgaga tcagctgtac atgttggcca agaaaccatc ttcgactata 240  
acgactttcc aagggtacga gataaatggg aatacathtt acaccatcgc ccaagataaa 300  
aagagcacca accaaaacag tgggtgtccgc tttgatgcag caaccgagaa tgggcaaaag 360





<210> 5975  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-E12  
  
 <400> 5975

atcgactggg cgatcgggtgc cttcgtctcc ggcgcaactg tctatggcta cagaggacag 60  
 agcattaagt ctgccctcaa tggatggatca agcctggcat tcacatctgc catcctggac 120  
 gttggtggta atactaccag agtggacatt ggccaagcgt accatgcata cacaacggaa 180  
 taagaagccc gagcctgcgc attgaccaac gttgtttacg tgtagcacac atcatgcaaa 240  
 ccagctcggg gaatTTTTga gctgatgcgt gctgttatgt ctgttttgct gatgcaccta 300  
 gttcctttgc aaagctgtag taacttgttt tgctcgaggg caatacaaca agacctggaa 360  
 taaatatctt gttttatttt g 381

<210> 5976  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-E8  
  
 <400> 5976

attcccgggt cgacggggga agataagaag tgcaaagggtg aatccagatt cccagcacag 60  
 gtgaggatcc gcattagaag gctttgcaag gccttggaag aggatgcttt caggccagtg 120  
 ctgcaccact atgatgggtcc taaattccgc ctgagactct ccatagcaga gacactgtca 180  
 ctgctagacc tgtgcaagac agaagacgcc tgatctgctt cggaacatgt ttgtggttgc 240  
 tctgtggttc tttttagtaa atatcatccc tgtaagttgt ggaagatgtt ttcacaatga 300  
 tctgtcccggt ccgtcgtcca tgaaagcgca agctgttggt tgggtggtgc atttccccca 360  
 gaaaggacct ggtactcgga agaagtaggc ctctaaagat gtgagcctg 409

<210> 5977  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-F11

<400> 5977

gtaggcgtca tgaattccag ggtcgacggg ctgctgaag gcccgattgt cctgttgacg 60  
agtgccatgc atggcagttg gcagggaaac ctctcgttg ttcacccttg tgttgacta 120  
ctagttcatc tccttgatac aatgctgcat acgtaagtaa aaatattgag tgaacaatgt 180  
gctgcattga gaaatctgag taattaagta aaaataagta gcaaaagtat cctgtaatcg 240  
actacataat catctgtacg tgtgcagacg atatgcaacg aaccgtcaag cagtgccctg 300  
cccacgtacg tacaggtct cataacatg gcgtacgtgc atgactcgtc cggccgggcg 360  
acagcc 366

<210> 5978

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-F2

<400> 5978

gggtcgacgg cacgatgaaa caatgacatt gtctggctat tcatacaatt ctatacaaga 60  
tgcaatggac gttgcagctg ctcgagtaat gaaatatatg gagaccatgc gtgccaaagg 120  
attgaaagac tatagttaca acgagttgca acaaacaag gaaagagaac tgcatctgat 180  
tggtttgtta ggacaaagaa aaagaaatca aagaacaggc totgaagatt agagaactta 240  
gcaaagactt tgcagactac ttatatcagg ttaaaagcac ttcttctgag attcaccgcc 300  
cagctaaagg aagtgtatgc tcagccaatt ccataagtgg ttgcgagctc cacaaagcgg 360  
ctatagatat tcataatgca attgctcatc ttggccagtt gagtgaaaac cctatgcaag 420  
gtaacaaaaa cacatcggtat tatcca 446

<210> 5979

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-F5

<400> 5979

attccccgggt cgacggggga atttatagaa gcaaggcgga ctgctgcact taacaatgcc 60

ccttctctgta tgtgggtctcc agtaccacct cttgagttaa aaggcgtgaa tgctgatgca 120  
 cttgatgcaa atgctgggtt tgttactttt gttgttttcc ctccggcatgt tgagggtaga 180  
 aagctagaca aaacagtttg gagtttgtta acctccatg cttatgtaag ctaccatgta 240  
 aagtgttctg aaggattcat gcacaccagg atgaggcgta gagttgagtc tctgatccag 300  
 gctttggacc gtgctaaatc cgatgcagag aagctgaaga agttggtaca tggcgggtct 360  
 tttaggagac tgagcatgaa gcacgaaggc aactctaact actgaaggaa gactcaggca 420  
 aatatatgaa agttttg 437

<210> 5980  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-F9  
 <400> 5980

attccagggg cgacggggac tcgccagtga tcaatcccca tcaactcgccg gcgattggtc 60  
 tggacgcgac caatggcaga aaccgcagcg atagcaccac caccacaacc aatggcacca 120  
 ccgcaaccag tggaggaaaa cgcaacggcg gcaccgtcac aaccaatggc accaccgcaa 180  
 ccaatggcgg aaaacgcaac ggcagcacca ccgcaaccaa tggcggaaag cgcaactgtc 240  
 gttgtgggtg tgccaccacc accgccagac ggcaccacga cattcctctg cctcatcctc 300  
 gccttcttca tccctccoct cggcggttttc ctcaagtaca aatgtgagat tgaattctgg 360  
 atctgcctca tcctaacatt cttggcctac gcgccgggca tcatccaagc cgtccgggtg 420  
 atcgtgaagt 430

<210> 5981  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-G1  
 <400> 5981

gggtcgaggg cgaatcgaaa gaacaaaaga gcttgcgcaa gaacacgtta accttgcggt 60  
 caaagccatc gaatctctcc cagacagtga cgatgaagat gttctgattt caaggcgcg 120

tcttattgat atcacacaga gagtcatcac aaggacaaaa tagcatgatt atacacaggg 180  
 tggagaagat aaggcggagt ttcaccacag gtgtagtggt cgccttgga atttttgggc 240  
 gccttgggtca ttgcattctt tccattgccc gggttttgtg taacatttga tgagacttca 300  
 gggtaaccat tcctgggaat catcctaagt cgcagctgta gtggtttttag ttactgggtgg 360  
 cagcaaaatc tgtgtattaa tatcacgatt ggcgattgca cgaagacctg accataagac 420  
 tgttaccttt ataatcca 438

<210> 5982  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-H11  
 <400> 5982

tagccgtcga gaattctcgg gtcgacgggg tattggacaa ttataattca taacctgcac 60  
 taaaaaatac tcaaaatttt ataataccac cgttacttta actataagaa aaatggctat 120  
 ttgtatcaaa tcctaacatt aaacattaaa aatagacggg cgcagcaacg ccgccatcgg 180  
 tgatctagtt gtgcactaaa ctactccaat ttccatctta tgggagaatt tcaagctaga 240  
 ctcttgctat atgcagattt tgtcttccag gttatggata tcacattgca tgtattcacc 300  
 gttgtgggtg catctaata tactttctaa ctatatatac atcattgaca gttcatatct 360  
 tcagttgtgc aatattttac acacaacttg tccttctatt gcgggaaaca ccaatatatc 420  
 ttggcaaagc tggactgaga atga 444

<210> 5983  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-H5  
 <400> 5983

ggtacaggtc tagaattccc gggtcgacgg ggctcggttaa tagacgagga gcattccata 60  
 ttagtaccac tcctaccaag tttgtactcc taatactatt atattactag tactaccact 120  
 atacaactag tagatactg caccgcacaa catcgtagga acaaaaaacg ggaagatctt 180

gttttgggtg atttatcttt ttttcaatca acgtagtatg aataatatga tgtggggggc 240  
 acccatgaag cttatgtggc ttggttgcac ggctacgaaa ggtagagaa aaataaatag 300  
 ataatgtgtt tagagtgcac tccactaaat agatacactt tggatccatt gcaacagacc 360  
 ggcacatcta tatctatacc ccctataaag tgtgtgaaaa a 401

<210> 5984  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-H7  
 <400> 5984

attcccgggt cgacggggaa gaagaatctt aacaagtctt ctacttcctc tcgccaatc 60  
 tcctcacctg ccccgagaa gagagagaga gaaaagcagc gagacgcgaa tcagcggcgg 120  
 cgatggctct cccggcgtcc ggctccaccc tctcccgctt cctctcctcc cgccgcatcc 180  
 agcccacgga catcacccgc ctcgccacct ggggcgtctt cgccggcagc gccgccatct 240  
 acctcgtcca gccattcgac tggatcaaga agaccttctt tgagaagccc gagccagagg 300  
 catgagtgtc atacatggca acttttgatg cctacatttt caggacgatt ctctgagttt 360  
 ggatgaccca gccataata tacaagacct tcgtgttccc ttgtttgatt tcccatcca 419

<210> 5985  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-A1  
 <400> 5985

agtaccgct cgagaattca cgggtcgacg ggggtgtggca gcggcactgg ttctggaaga 60  
 ggttcttcgc cgacgccgat gaggccaaga ttaataactg ctaccagct gatgatgacg 120  
 ataatgcccg gctttgctac acacacggaa taatacggag ttttacgggc ctggacgccc 180  
 accccaccag ttaaaatcag ggggggcggt taagtaggtg gagaagtta cttttgcaa 240  
 ttacaacact aaaggtcagc gcgtccgtaa aacttgtgog tgtgcggcac gtgtgtctag 300  
 catttttgcg ataatgcctg tgtcctgaag tcgcacaagc cttgcttcca agcaacatca 360

cgagtactga acacctttcc t

381

<210> 5986

<211> 87

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-A10

<400> 5986

ccctatagtg agtcgtatta cgcaggcagg tatgttctgg tctctgccgg ctgcgcgatt 60

tcggacgacg gcaatcgatt ggagtcc 87

<210> 5987

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-A12

<400> 5987

ggctctagaat tcccgggtcg acgggattat atgtggccaa gttcccagga aaaataataa 60

acttgtaata cgacaattat tttaaaaaag tggttctcaga aacgagctat cacgtgtgga 120

gatcaatggc tttcaggcga aatgatcaat cttatggcca cattcatggc atagtttggt 180

cagatgatct catattgtgc acaagggtgc atattggaat ggcaaacaat gttgcctaag 240

gaagttttca ttttgtttg acgaaaaaac cattttccat tcttcgagtg cccaaaagga 300

ggtttttttg tgaaggacct cccaaataat tggtgcataa ttgtaccaa tcatttttct 360

aaaatactag tccatattta atgcacaatt aacaaaaatg gttgggtgta aaatgttttg 420

atccacctct cgtgaaaaag acaaatttcc gcc 453

<210> 5988

<211> 286

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-A6

<400> 5988

tcgtgggtcg atacgggtcc ctatagttag tcgtattagt tggtcttgta catgcattcg 60

ccgtgtcagc agccaggcga cgcggagggg atgaaggga tacagagaac atgtttctgt 120  
ctaggtcatc ctgcttactt aggggaggtg gatggcccga cagaaggcat gcacatattg 180  
acgagggccg agactaattt gttaacggtt atttttaagg tttattgtct gtttatttct 240  
attttacaac ctgaatgaca aatgggacac aactgtaac agaaca 286

<210> 5989  
<211> 379  
<212> DNA  
<213> *Triticum aestivum*

<223> Clone ID: LIB104-041-Q1-E1-A8

<400> 5989

gtctagaagt cccgggtcga cggggattcc ttggacgagg atgacctaac ttgatcccaa 60  
acgtgcccag cgagatgcag agagaagcac aatcaatcga gtgactcaaa ctatgtgccg 120  
ttgatgaaca ggaaaggttg taaaaacaca ttctgaatta catagaaact tgtaggctgc 180  
atctgtatca tggattgtga tccccttatt ttcgttgttt tggatctgtg cacatacacc 240  
ctacacctat actgttggtt tgctgttgcc acattcttat ttgttcgatt acctggacag 300  
tgttctgtta tttgtatata caccagcata tgctgaagga caaacggatt ccaaaaaata 360  
aatcgtgca taataaaac 379

<210> 5990  
<211> 386  
<212> DNA  
<213> *Triticum aestivum*

<223> Clone ID: LIB104-041-Q1-E1-B12

<400> 5990

cgccggcagg ttacggtcta gaattcccgg gtcgacggga gattctacat atattttcta 60  
aaagacatgt cacttggtcg aggccttgat catggtgata tgtgtttatt cgtccggtga 120  
ctcagtagaa cgataacctc tgtgcacagt gatgtttcag tttctacatt gatggtttca 180  
agcataagaa ggtttcaaaa ttaaatgagc cttgtacagg actgataaca aattatgctt 240  
tctgagtttc aagctactga aagtaattga agctttgect tcgctatgta agaatgggtg 300  
catgtgttaa ttagtgggtc acattttttg agactgtcca aaattctatt ataaaatgct 360



tatatgaaaa aaacggaaca aaaacg

386

<210> 5991

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-B2

<400> 5991

attcacgggt cgacggggag gttgagaagc tgactggcag gatagtgaag tggctgaagc 60

ccggtgggca tattttcatc agggaatcgt gcttccacca gtctggggat tccaagagga 120

aagtgaaccc gacgcactac cgggagccga ggttctacac caaggtgttt aaggaatgcc 180

actcctatga ccaagagggg aattcctttg agctttctct ggtaacttcc aagtgcattg 240

gagcttatgt gaaaagcaag aagaaccaga accagatatg ttggctgtgg gagaggggtca 300

agtgcacaga agacaaaggc tttcagagat tcttggacaa tgtgcagtac aaatccactg 360

gaatcttgcg ttatgagcgc gtgtttgggg aggattatgt tagcaccggt ggattcgaga 420

ccacaaaggg attttgtgga caa 443

<210> 5992

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-B4

<400> 5992

atagtgaagtc gtaatatcaa gattaggagg gtgaatgtta gagctaattc tgatatttgt 60

attagcatgt ttgagttttg catgtagtct agtctagtgt ggcgttcgtc cgacgaaggc 120

ttcaggtgag cgcgccaagg aggtgagatg ccaggatgcc gtgtgaggcg gcgagcacgg 180

cgagatgccg atggtgctgc gtgagaagcg gcaagacgta tcagaggctg gagccgtgat 240

ggactgcac aaattgggtc ggggtgaaccg gccggtcgtt ctgtttgttg gactagctgt 300

tcatgcgtga gttcgttttag tcttagccga gagtgtcgtt gctagtagtt tatgcatgca 360

tgtagttggc ctggtcacia gtggttaccg agtcgtgttc aacg 404

<210> 5993  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-041-Q1-E1-B7  
  
 <400> 5993

ggtctagaat tcacgggtcg acgggaaggt caacatggtg tagcacgggc accacaaaac 60  
 aaccgtctgc tgcgccctcc atgacggggc tgaaatggca cctcagaag cagcactgcc 120  
 gctactcggc atggttctgt acatatctct gtcgattcga acaacgcacc aggggtgctca 180  
 gctatatattt cagcgcagtg gcggctcgag gacaggcggg ttttaagattt gatttgctgt 240  
 aatgctacga ccaagtgtaa caatgtactt atatgcactg caacctttgg aggctgcgca 300  
 cagggtgattt gtatggttgc ttacattggt ggatatttaa ttgtgcacaa cctaaatatt 360  
 atgcacacat cgccattggt tccgcttggt aaatgcgacc cataaatgtg ttccaaaaaa 420  
 caaactcctt actggga 437

<210> 5994  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-041-Q1-E1-C12  
  
 <400> 5994

ggtccagaat tcccgggtcg acgggggtgg ttaaatttta tagaaattat tgatctctca 60  
 tgcttcactt atattatttt gggagttatt tagaacaaca tggtaatttg ctttggtctat 120  
 aaaattagtc ctaatatgat aggcattcaa gatgggtata ataaaaactt tcatatagag 180  
 tgtattgaat actatgagaa gtttgatact tgattattgt tttgagatat gaagatggta 240  
 atattagagt catgctagtt gagtaattgt gaatttgaga aatacttggt ttaaagtttg 300  
 caagtcccgt agcatgcacg tatggtaacc gttgtgtaac aaatttgaaa catgagttgt 360  
 tctttgattg tcatccttat gagtggcggg cggggacgag cgatggtctt ttcctaccaa 420  
 tctgtccccc t 431

<210> 5995  
 <211> 358

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C2  
 <400> 5995  
 ccctagagtg agtcgtatta tgtcaagtag tggacagata agccaaccac tggatgtggt 60  
 tttcagggat ttttgcagtg ggattttag ggtactatgc tgcgctgtgt ttgggatttg 120  
 aaataaaacg atgggagatg tgccacgctc ttaaatgcc a gtcttctgct ctaatcttgc 180  
 taaattactt gttgcatttt gcagcttgtc tacctttaca gtgactacct tcttttggct 240  
 gtgctcattt ggcaaaacag tttgtcta at tcacatctac ttogtgtctt tttagacatt 300  
 tcaaatagac aacaacatac ggatgtatgt agacatattt tatagtgtag atccattc 358

<210> 5996  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C6  
 <400> 5996  
 gttggtcatt gcgacactct atagtgagtc gtactagggc aagaccatca cccttgaggt 60  
 ggagtcgtct gacaccatcg acaacgtcaa ggccaagatc caggacaagg agggcattcc 120  
 cccggaccag cagcgctta tcttcgccgg caagcagctg gaggacggcc gcacccttgc 180  
 cgactacaac atccagaagg agtcactct ccacctgggtg ctgcgcctgc gtggcgcat 240  
 gcacatcttc gtgaagacc tcaaggcaa gaccatcact ctggagggtg agagctctga 300  
 caccatcgac aacgtcaagg ccaagatcca ggacaaggag ggcaccccc cgaccagca 360  
 gcgccttata ttcgctggca agcagctgga ggatggctgc acccttgccg actacaacat 420  
 ccag 424

<210> 5997  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C7  
 <400> 5997

agtgagtcgt actatgcat cgacgtcaaa gttcttgtgc agtctacgtc atagcccgtc 60  
 cacggggcct cgtaatacca cgtcatgggt ggtagtttct cagcgtcacg catgggaatc 120  
 gcctggcgtc acatgtcgga gtcgccatct ggcgtattac cactcggca cctaacgata 180  
 tccctatgca gcggttgctg atcgtgcttg gcgacaggga cgtaccctga agcgccgcag 240  
 ggagctccac ggttgcggtg catgcacgga gcttggtgtc gacgtgtcgc cggcgcgcgga 300  
 gcgctcgag 309

<210> 5998  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C8  
 <400> 5998

gtccagaatt cccgggtcga cggggatgaa aaactacatg ctgagtgggc agcagccaag 60  
 ctggccagca aaaagcgct agccaagcat gtattggatg tgactggtgt tacaattgac 120  
 ccagatagcc tttttgatat acaaattaaa cgcattccacg aatacaagag acagctgatg 180  
 aacatttttg gagctgtgta cagatacaag aagttaaagg aatgagcgc agcagacagg 240  
 cagaaggtta caccgcgcac tgtcatggta ggagggaaag catttgcaac atacaccaac 300  
 gccaaaagaa tagtgaaatt ggtaaatgat gttggtgctg tggatgaaca cgatgctgac 360  
 gtcaacaaat atctgaaggt ggtgttcatt ccaaactaca atgtatcagt ggctgaagtg 420  
 ctcattcctg gc 432

<210> 5999  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C9  
 <400> 5999

attacaacac cctatagtga gtcgtattaa gcagcagcca agctggccag caaaaagcgc 60  
 ctagccaagc atgtattgga tgtgactggt gttacaattg acccagatag cctttttgat 120  
 atacaaatta aacgcatcca cgaatacaag agacagctga tgaacatttt gggagctgtg 180

tacagataca agaagttaaa ggaaatgagc gcagcagaca ggcagaaggt tacaccgcgc 240  
 actgtcatgg taggagggaa agcatttgca acatacacca acgccaaaag aatagtgaaa 300  
 ttggtaaatg atgttggtgc tgtggtgaac aacgatgctg acgtcaacca atatctgaag 360  
 gtggtgttc 369

<210> 6000  
 <211> 218  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-D12  
 <400> 6000

ccctatagtg agtcgtatta gacgtgtatg gaagtcctag gccaggcgac tatttcacgg 60  
 acagccgaag aggaattccg tcaatccgcc accgttttga ctcttgagaa caactctatc 120  
 aactcagtag atccttttag gacgccctca gtgaccacag gttgaaccta acgaagttag 180  
 actgtgctat ggctcgatat tcacgcacta gctgtacg 218

<210> 6001  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-D5  
 <400> 6001

ctcgttggtc aatgggagac cctatagtga gtcgtattag gcagcagagc agacggccgg 60  
 cgacgaacca atccagccag ccgaactcgt cagcgcgagc ccgcccttcc cgcgagataa 120  
 accatgggtg gggacttgg tttgatacag attgatcaat caacagtagc catcaaggag 180  
 acttttgga agtttgatgc gatcctgcaa cctggatgcc actgcttgcc atggtgccta 240  
 gggcagcaga ttgctggata tctttctctg cgtgtgcagc agcttgacgt ccgatgcgaa 300  
 accaagacca aggataatgt ctttgtcaac gttgtggcat ctgtgcagta ccgtgctctt 360  
 gctgacaagg catctgatgc cttttacagg cttagcaaca ccagggagca aatccagtcc 420  
 taagt 425

<210> 6002  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-D6

<400> 6002

aattccccggg tcgacgggtc aggaggcatg cacgaatgat gaggggggat gatgtggctg 60  
 tggttaagcag acgtaactac ataggaagat caatcgccct ttgttagaga aaggagagac 120  
 ataacttgtg aggtacgtcg atcgatgggg gggtagttaa agtcgatcta ggtatatgtt 180  
 gggagatcaa tcggtataca tgcattgtgtg tgttagaagc aaatgaggca cgaggagaag 240  
 gatagagaga gagagagggg tgcattgtagg aggtggtacg agaggcatac tatatcgagg 300  
 gtggaggagt gtgcgagtac gagaatgatg aaaagagtgg tgggagtgag gcatggatgg 360  
 tgacaagaga agaggggaag cttgtgtttg tgctaggcac acctggct 408

<210> 6003  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-D7

<400> 6003

tacgggagaa gaagaagaag gagcagaaga tgaagaagaa gaaggaggag aagaaaaaga 60  
 agaagaagaa gaaacagaag aagatgaaga agaagatgaa taagaagcag aataaggaag 120  
 aaggataaga agaagaagaa gaacatgaag atgacgggaa gacaagtaag aaggataaaa 180  
 aggagaagga tgagaaaaag aaagaagatg gcgaaggctc agaaaaggag aaggccatga 240  
 aagggaagaa taagaagagc gagagcaaag agaaggataa aaatagcgtc aaggagactg 300  
 gagctgatgc agatgacagt agccccaaga acaaaaagaa ggagaaggac aaggcaaaga 360

<210> 6004  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-D9

<400> 6004

tcgtttgtca ttacaactcc ctatagttag tcgtattaca tcaagggtcac aagcactcag 60  
gtacctcttt gtgcgttggg gcctgcccgt gggcaacatg tacattgtcc tcggggaaca 120  
tggcgacacc gaccgtgagg agatgctttc aggactacac aagacggtga ttgttaaagg 180  
cgtcaccgag aaagggtcag aggacctgct gaggagctca gggagttacc acaaggaaga 240  
cgttgtcccg tccgatagcc cattggctac caccacgcgc ggtgatctga agtcggatga 300  
gatcctgcgg gctctcaagg aggtctccaa ggcttccagc ggctgatcgg ttgcccggaa 360  
gctcgatgat gccgaacatc ttcactcatg ctatttaata tcttccgctt g 411

<210> 6005  
<211> 87  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-E12  
<400> 6005

ccctatagtg agtcgtatta attgtatcgc gacttggatg gatgagatcg acgatctaac 60  
tgctcatggt cagtcgtcat gaggggtg 87

<210> 6006  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-041-Q1-E1-E3  
<400> 6006

ttcacgggtc gacgggttcc ttaaaacagt tggtgcaaatt attgatattg aggaagggaa 60  
tattagattc caatttccac taaggaaagg catggaacac tttacaagaa agaaagttaa 120  
attaccttgt gaatctatca tgcgagctac ttatgaattg aatgccaaag atggtactac 180  
atagatctat tctcactttt atgcctagct aggggcggtta aacgatagcg ctagttggga 240  
ggcaacccaa tttgatTTTT gtttcttgct ttttgcttct gtttagtaat aaatatttca 300  
tctagcttct gtttagatat gtttttatgt ttttaattagt gtttgtgcca agtagaacct 360  
ataggataac ctacggtgat aattaatttg attctgctga naaacagaaa gttttacgcg 420

cacgaaaata a

431

<210> 6007  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-E5  
  
<400> 6007

atagtgagtc gtattagcag ctggaggagg caagatggcc ggaggcgcc tgcccctact 60  
gctacgagga ctacgacctc ggctccctct gcgtccacct cgaggaggac caccctacg 120  
agccacaccc cgcaccttgc cccatctgct ctgaaaagat tacaagagat atgctaaatc 180  
atatcaccat gcatcatggg tacttgttca aggcgcttct aggaggcggg catagtcata 240  
ggtaaggaa caccaccact ggcactacaa atatctatgc tgatccactg ctttcacgtg 300  
ttggcctggg ttttgcaaca tcagatgccg aagaaccatc gaaatcatca gtcccggttc 360  
tcgatgatac ttcaattcct aaggaggggc ctctcaacc ttgggaat 408

<210> 6008  
<211> 214  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-E6  
  
<400> 6008

atagtgagtc gtattaggaa gtgggtggtg tctgcacggg tgaagtcgcc agccactttc 60  
acttcgaaga tacagacctt ggggcgatca gcatggagag aatgcgaggc cacctcggct 120  
agtagattac tactatagac gtagtacgaca cggacgcaga cttcagtga ttagtgcaac 180  
tgccctcaggg tgtatcacgg tgagttgttc aggg 214

<210> 6009  
<211> 212  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-E7  
  
<400> 6009



atagtgagtc gtattaaact ccctgcgggc cctgatcccc atgtgtcgag ggtgccaggc 60  
 gtcggcggtgc gggaagatc cgggcgcggc cggcgcaacg gcgctgcaga agcacgcggc 120  
 gttcatcgac ggtgacaggc agcgcgtcgt caacttcgct gacacgtacg caccctgtcc 180  
 ggcccgcggc cttcgagttg ctgcctccac cg 212

<210> 6010  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-E9  
 <400> 6010

gtgagtcgta ttaatagtagt tactgtagct acgatacctg tagttcgctt gccctgctgc 60  
 tacttcagta gtcattgctt aataataatg gtctcagtat taaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa agggggggccc aaaaaaattt aaagctaaat aaggtgtaca agaaatttaa 300  
 aaaccttcaa aaatttcacc aaaattaaaa ttaaaggggc tttttttaaa aagtttttag 360  
 ggggaaaaac tgggggttta 380

<210> 6011  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-F11  
 <400> 6011

ggtccagaat tccccgggtcg acgggtatat tattttgaga gtcatttaga acaacatggt 60  
 aatttgcttt ggttataaaa ttagtcctaa tatgatgggc atccaagatg ggtataataa 120  
 aaactttcat ataaagtgcg ttgaatacta tgagaagttt ggttctttat gattgttttg 180  
 agatatgaag atggtgatag cagagtcacg ctagtagagt agttgtgaat ttagagata 240  
 cttgtgttaa agtttgtgat tcccgtagca tgcacgatg gtgaaccgtt atgtgatgaa 300  
 gttggagctt gatttattta ttgatattt ctttatgagt ggcagtcggg gacgagcgat 360

ggctctttcc taccaatcta tccccctagg agcttgcgca tagtacttcg tttggataac 420  
 taat 424

<210> 6012  
 <211> 220  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-F5

<400> 6012

caatacgaat cactataatg actcctatca caaggagggc atgatggaga agatcaagga 60  
 caagatcagc ggcgacggcc acagcgacgg caacaatgac ggcgaccgta aaaaaaaaaa 120  
 aaaaaaacg gacgctcaag cggatgcact ctaagatcca cgcttacgta accttacatg 180  
 ccacctcata tctgttctaa attgtcacca aaattcatct 220

<210> 6013  
 <211> 234  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-F9

<400> 6013

gtgagtcgta ttatgtcaag tagtggacag ataagccaac cactggatgt ggttttcagg 60  
 gatttttgca gtgggatttg taggggtacta tgctgcgctg tgtttgggat ttgaaataaa 120  
 acgatgggag atgtgccacg ctcttaaaaa aacaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 ctcaaaaaaa ataaaaaaaa agaaaaaaaa aaaaacaaaa acaaaacaaa ctct 234

<210> 6014  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G12

<400> 6014

ggtccagaat tccccgggtcg acgggttgta cagattttat gtgacagaca acaacctgca 60  
 cggccgtcta ccagctgata tgggaagaag ccttctagc atacaacagt ttggatttgg 120

ggataaccaa ttactggag ttgtgcctcc atcactgact aatatctcca gacttcagct 180  
 ttttgatgtt ggaaataacg gattcagtg ggttgtccct tcagagttgg gaagattgca 240  
 gtatcttaga tggttttgtc tggatgtgaa caagttcgag gcaaacaatg agcgagaatg 300  
 gcaattcctt acttctttga caaactgtag caggctgcga ctgatgtcta tagaacaaaa 360  
 caggttctca gggcaattgc caacctcaat atctaactta tccacaaaca tccaagagct 420  
 aagtattttg gccacaata tatctggtac tatccc 456

<210> 6015  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G5

<400> 6015

ttacaacacc ctatagttag tcgtattaag atcaacggac tcgcgcttaa aagatatctt 60  
 cattttccag cacgcttcgg attcctggag cgttgcaaga tcacgctcaa gtccgtggag 120  
 aggaacaagt cttgggaggt ggaagggtgc aactaccatc caggcaccaa caggctttat 180  
 aattgtctta cgagaggctg gaaggccttc tgtaaggaga acgagctcaa ggcaggagac 240  
 atctgcacct tcaaagtcac caagagcacg ctgtggcatg ttgtcatcga ccgctgctag 300  
 aaatacgggt cacagatgat cttggctgat ggcggacctg ctggttttgc gaacctaatg 360  
 agtatcatga tgaatattgt ggtgacatga taatcaacct gctaggagtt tgtgt 415

<210> 6016  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G6

<400> 6016

atagttagtc gtattaagat caacggactc acgcttaaag gatattctca ttttccagca 60  
 tgcttcggat tectggagcg ttgcaagatc acgctcaagt ccgtggagag gaacccgtct 120  
 tgggaggttg acggtgtcac cgaccatcca ggcaccagca ggtcttagca ctggcttacg 180  
 agaggctgga aggccttctg tagggagaac gagctcaagg catgagagat cagcaccttc 240

aaagtcacatca gcatcacgca gtggcatgta gtcacgcacc ggggctacaa atacggttca 300  
cagatgatct tggctgatgg cggacctgct ggttttgcga acctaactag tatcatgatg 360  
aatagtgtgg tgacctgata agccagctgc c 391

<210> 6017  
<211> 183  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-G8  
<400> 6017

attacaacac cctatagtga gtcgtattaa tggcatgtca tgcgacttcg aaggtgtacg 60  
gaatgttcac atgagtggcc gtcgtcatag aacagtgatc atggggataa cgctgaagtc 120  
agccggtgtg gtcgctgtgc agcagaggct ccgtgagctc gctggggcaa tcatgaggag 180  
gcg 183

<210> 6018  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-H10  
<400> 6018

ggtccagaat tcccgggtcg acgggctcaa ctactagta ataggttcat cataattgga 60  
tctcttaaag atattagcaa gtggatgagg atccataaac ttttagcaat gaaagatgca 120  
agcaaaaata aggcacatag tggcttctct catgataaca agtattatgg tgggtgaaca 180  
aattattgcc gagcaattga tagaagagcg cattgttctg agaatatcta ggcaatgatt 240  
atgaacataa gcatcacgtc tgtgtaaagt agaccgaaat gattctgcat ctactactat 300  
tactccacac atcgaccact ttccagcatg catccagagt attaagttca taagaacaga 360  
gtaatgcttt aggaaagatg acatgatgta gagggataaa ctcaagcaat atgatataaa 420  
cccatcttt 430

<210> 6019  
<211> 413  
<212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-041-Q1-E1-H11

<400>      6019

```

gggccagagt tccccgggtcg acgggtcggt caccgaaatta gtctgattga agaggtatga   60
tttcgcccgc gtgactttcc tactgtcagg aaattgagtg ccccgacgga attgagagtt  120
caagtgtccg gccattgttg tgctagcgcc agctgtcaag tggattttta tcctgacaac  180
tgtcatgtcc gaagcggcat ttatgtctta ttagcacgtc gggtcgcccc tggctataca  240
tagccccctt aaccatttgt tggttggtcg ctccaagaga gagattgaca agtatcaaag  300
gagagcagcc catactctga cgagcttgaa aatccaagta tggaattccc caaccaaattc  360
cagagtgtatt aagcatcatt gaagatattg gcatgtgtag tcccacgcct att          413

```

<210>      6020

<211>      366

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-041-Q1-E1-H7

<400>      6020

```

tagtgagtcg tattaaggga gatgacactt gaggatttcc tggtgaaagc tggagttgtc   60
gctgacgggc atttgacgga tccgattgac ttgccagcta acatgggtgc ggttgggagc  120
agtgttaattg aggctgctgc gccagtttg aaccccgag cgcatgtggtt acagcagtac  180
ctggagcccc agcatccacg catggcaggt cttttcatgg caagtcattt gggtcctcag  240
ccattgtctg ttgctacagg tgctatcatg gaaccaattt acccgatgg ccaaattacg  300
tcaccaatgc tcgatgcgct ttctgatcct cagacaccta ggcgcaagcg tggcgctca   360
aatggt                                           366

```

<210>      6021

<211>      417

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-041-Q1-E1-H9

<400>      6021

taacgggtcca gaattcccggt gtcgactgcc accaaaacga tatccatcat ctcatcgaaa 60  
 gacggggacac ctttgcctct atcaaatagc tatcactaca tgcataatttg gctgggtggaa 120  
 aagcttttatg gtcatagtat tttgcgaaaa gccaatTTTT cctactacaa aggaatataa 180  
 tttattttaac tacaaagttg gttgaaaata ttgagaaggt tcttccaact caatcccaaa 240  
 ttaacatcaa taaccaaca aattatttaa gtaacgtgat gagatcaata tgataatcca 300  
 agaaccagat actcaagatt gtccataacc gggaacacgg ctaatcatga ttagtttgta 360  
 cactctgcag aggtttgcgc acttttccca caggactcaa ttaataagac atgacta 417

<210> 6022

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A1

<400> 6022

gtaccgggtcc tacattcacg ggtcgacggg gatccggaag acggaggcga acgaggaggc 60  
 gaagctgagc tcgttccagc aggagatcgt gcagctggcg gcggtgctga acggcgacca 120  
 ccagctaagc agcctgcagg agaggatcag ggagaggatg aacgtgaggg aaggcacctc 180  
 ctacatgagg agcgccgtgc ggcgcttctt cgaggctggc atgtctgcca agaggatggg 240  
 cctcgccgac gacgagcaga tcgtcaagat gagggccctcc cttaccacca gaatgacctc 300  
 ctcccttgca gatcaagatg atagtccgta gagggcacag accgacgcat acataccata 360  
 cataggatga agattgatgt tgggattacc aaaattccta gtactacaca tacatacata 420  
 gaag 424

<210> 6023

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A6

<400> 6023

attcggggt cgacgggtct acgtatatcg gtaactttac ttggagctat atttttatc 60  
 gccacatgat atttgattg cttggagcat cttgtatgat actagtcttt gcttattagt 120

ttaccacaat catccttgct gtaaacacct tttgggagaa acccacttga ttggaattta 180  
 ttagaatact ctatgtgctt cacttatatc ttttgagcta gatagttttt gctctaattgc 240  
 ttcacttaaa tcttttagag catggcgatg gcttaatttt gtagaaattg atagtctctc 300  
 atgcttcact tatattatct ttagagtgtc ttagaacaga atggtatttg ctatgggtat 360  
 aaaattgggc ctagaatgat g 381

<210> 6024  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-B7  
 <400> 6024

acgggggttag gaagaagtgg ggtggtggtg tcatgggctc caagtcgcaa gcgaagacca 60  
 aggccaggga aaggcttatt gcaaaggagg ctgcgagcg gatgaactaa gtttagcatt 120  
 gttgaaccat atctattcct catccttgag tagtggtcaa gcatactgtg gctgtttggc 180  
 tccagttttg gaagtcattt ttgtttgtct gagacatctt ggaaagaaca gtgtaagaat 240  
 gaagtatttc tgtttaatgc cagtttagtat ttttgctgaa aaaaataaaa ttcaaataac 300  
 aaaaaaggat aaaaatcaga attcccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagcgg 360  
 ccgctctaaa ggatccaagc ttacttaccg gtgcat 396

<210> 6025  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-C7  
 <400> 6025

attcccgggt cgacgggatg gtaaattgtt tgtgacaaat ttgaagcatg ggggtgttatt 60  
 tgattgcttt ccttatgagt ggtggtcagg gacgagtgat ggtcttttcc taccaatcta 120  
 tccccctagg agcatgcgag tagtgccgag gtttttgatg acttgtagat ttttgcaata 180  
 agtatgtgag ttctttatgg ctaatgttga gtccatggat tatatgcact ctcacccttc 240  
 catccttgct agcctcttcg gtaacgtgca ttaccctttc tcatattgag agttggcgca 300

aacttcgccg gtgcatccaa accccatgat atgatacgct ctatcacaca taagcctcct 360  
 tatatcttcc ccaaagcagc caccatacct acctattatg gcattttcat agccattcna 420  
 ggatatattg ccatg 435

<210> 6026  
 <211> 242  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-D12  
 <400> 6026

cggggatagg agatgtaaat atgcattggt gtatcgcgac ctgaatgaat ggaataaacg 60  
 aaataacgct gttgttcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 cgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaggggccg ctcaaaagga tcaaagctaa 180  
 cgtacgcgtg aaggcgacgt caaagctctt caagagggtc accaaaattc aattcacggg 240  
 gg 242

<210> 6027  
 <211> 272  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-E8  
 <400> 6027

attcncgggt cgacgggtca taggacagtc tgaacgaaac gtatccggat ttcaaggtga 60  
 cttagcgtaa gagtttgcca gcctgcacga acgatttcgg aaagcaatgc ttcttttggc 120  
 gaaggcttta tggccatacg attctcctcc tgttctactc ccgtgagctc gcgggactat 180  
 tcaactgacc acaccgtaat tatgccctgt cgaatcgtat tctcatctct acatggtgca 240  
 cgagacgact gtgccatgat caaaatccgg ta 272

<210> 6028  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-042-Q1-E1-F6

<400> 6028

attccccgggt cgacggggaa ttggattggc tttcccactt gttttttttc cttctataag 60  
ttcagtgtgt ggcaaaagct tttcttttca aatttttctt tttgaggaaa ttttcttttc 120  
aattttgggc gaagaccgaa gagcggcggc aactataatt tccagtgcta gcatctgtaa 180  
agtatcacca aaatatgcat ctccattcac tattgtaaga tgttctttct cttttctgat 240  
tgagatgtat gtagacgaat tttgacgtga ttgttcattc aattcaatat atatgtaatc 300  
tatattataa aatatattat atttgtgagc agaggaggtt gcagtttaga tactccctcc 360  
attcacaaat ataagatgtt ctaacttttg tctgaattag gtgtt 405

<210> 6029

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-F8

<400> 6029

aattccccggg tcgacggggc atcacacgcc ctacttgetg gttttcccgt gatatgtaga 60  
aattcgcttc ttttcttgac tctacttgat tgtttttcct aattggctgg tcatcatctg 120  
atttgtgcct cagatcctag cttacgttca accatgggtct gtaagcacat ggtttcttat 180  
ctagtttccg tatttatctt ttgatgatgt tggttgttca ctattttgaa acatgaataa 240  
ctttttactg acttcgatct ctctcatata ctacatgatt cagcttcacg attttcttca 300  
tactatctta tgaaaatgta acaaacacat ttttgaaact ttttaacatt ttaaaaaatg 360  
taacgcacat ttttaataata tgacactatt tctattatgc aaatatattt taca 414

<210> 6030

<211> 434

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-042-Q1-E1-G3

<400> 6030

gggtcgaccg ggtgacgtag cgcgagcagg ttggtcggag tgaggtggct gcgggcggcg 60

gacatgtccg ttccgatccg gacgtgtccg gcggcggaga gggagcgggg ctaggggttg 120  
 actgcgcgaa aaatcccgag gggatcgcat atttataggt agagggagct angagagtcc 180  
 aaatgaggag cggttttcgc ccacgcgac gtgatcgaac gaccgagagc gtggagggga 240  
 gttagatggg ttttgggcta ctttgggaagg ggtgttgggc tgcaacaaaa gaggcctttt 300  
 acggttacct gggttaaccgt tggagtatca aacgacctcc aaatggcacg aaacttgaca 360  
 agcgggtctac cgggtgtata ccaaggccgc ttggcaaacc tcgggtcatt ccgagaaagt 420  
 taacacccgc tcac 434

<210> 6031  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-G5  
 <400> 6031

gtaccgatca agaattcccg ggtcgacggg gtatgtata aagaataaag ataaccatga 60  
 aaattgtcat catgatttta attttcaatt ggagtatgct tcacattata gttattttgt 120  
 tgagtttgct cccactacta ttcagtgaag aaaatttgct tttgtggaga gtaataaaat 180  
 ttctatgctt gtagatcatg aaaagaatgc tttatgtgat agttatattg ttgaattcat 240  
 tcatgacgct attgaaaatt attatgaggg aggaatatat gctttagtagga attgcaataa 300  
 tttcaagttt cctctctatg ttcttaaaat cgtgaagtta tgcttgtttt gccttcctat 360  
 gctagttgat tattgttcnc ataagttttt tgctcacaaa atccctatgc atangaagtg 420  
 ggtttagactt aaatg 435

<210> 6032  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-G7  
 <400> 6032

taccgatcaa gaattcccg gccgacggga ttcaataatc tatttatgtt atccagaaca 60

aaagtacttc acacactttt gtgttttgtc taattgcagg tgtatgggac atttgtacaa 120  
 tccacatatg aagatagggg aaaaggagaa gtttaggttc tgttcaaaaa gtcctctcac 180  
 gtcacttttg ggccaagaga agatagagtc catgtctctc acgttctgga ttcagattcg 240  
 aactgcacag acatacctga ctcaaaacgc caacaacttt ttcatacgga ctccgaattg 300  
 ggtgattctt tctttgttgg aaagtagatt tcatactctt tccaacccaa ttggattcac 360  
 ctttaaattc gtcgggagcg ttgagatatg gacgaaacaa tctgacgctg cagcagaatc 420  
 tgagtcaaac aaca 434

<210> 6033  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-H7

<400> 6033

gtaccgatcc agaattcgcg ggtcgacggg aaaccctaga agctagccta tggatgatt 60  
 gttgtcgccc tgcggactaa accctccggt ttatatagac accggagggg gctaggggta 120  
 cacacagtcg attacaagga agaagatcta catatccgta ttgccaagct ttccttcac 180  
 gccaaaggaga gtcccatccg gacacgggac gaagtcttca atcttgtatc ttcatagtcc 240  
 aacagtccgg ccaatggata tagtccgact gtccggagac cccctaatac aggactccct 300  
 cggtagcccc tgaaccaggc ttcaatgacg atgagtccgg cgcgagatt tgtctttggc 360  
 attgcaaggt gggttcttcc tctgaatact ccatagaaga ttttgaacac aaggatagtg 420  
 tccgggtcag canaacaagt tcacata 447

<210> 6034  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-H8

<400> 6034

aaaattcccc ggtcgacggg aggtgtaact tcttctaatt gaggttccag aaacttctag 60  
 agccttcac aaccctccag aggttttcta ggggtgtcct aaactttttg gatctccgct 120

tttttctcggt ttccttcata acattttctt ttcttccaaa acttttctgg tgcaattcac 180  
 ataagctctt gcacttctag tactcaacaa atcgatgac ctttaagcgtg tgtcctggca 240  
 gggttcggtaa atgtagacaa gacccggaac accttcgggt caatggccaa tagcagaact 300  
 gtggacatcc atattgtccc ccctacactt acacgaatta ttatcgagtg aacctattgt 360  
 tctgacacac aattcccttt atttcacaat ataacataat caaaggtgat acttattggt 420  
 atccatgtga agcaactcat gatcaccata c 451

<210> 6035  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-A1  
  
 <400> 6035

gggtcgacgg gcaccaacaa tccattcttt aaatgtagac acaaagaatt cggtgttttt 60  
 aacagaagga cattcttcaa attgtttttg gtttaaaaaa tgttcacat ttaatatct 120  
 aatatttcca aaaaggtatc agaatgtttc aaaaaaatgg atgcatttaa aaatattctt 180  
 attttaaaaa aaatctaatt tcttttaaaa agcatgtatt aaaaaatgtc agtcttaaaa 240  
 aaccatttta taaaaaagaa aatattaata tattttcaag aagtanaaaa taaaatcaat 300  
 gttgcgtaat tgcacacaca aagaagattt tnggtttttt tggcc 345

<210> 6036  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-A6  
  
 <400> 6036

gtacggacaa gaattcccgg gtcgacggga agatctagct gtctgagctg acggatgcgc 60  
 tgcggacgct ggggtcgacc tccgcgacg aggtgcagcg catgatggcg gagatcgaca 120  
 ccgatggtga cggcttcacg gacttcagcg agttcatctc cttctgcaac gccaaaccgg 180  
 gggtcatgaa ggacgtcgcc aaggtcttct gaatcagttc atttcacctc agccgtccga 240

tccaggagcc gatccatcta cgtacggctt cgtatatcaa tttcatgcaa ctacctactc 300  
 cggtcccgat tcagcctcag cttcacctga ggccggccct aattttgttt gatcaatttt 360  
 tttgctacta gtagtaacta gtgatgatca ctgttgacc at 402

<210> 6037  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-A8  
 <400> 6037

attccccgggt cgacggggag tatcagcaac tgcgatcaat tcatttatcc gtggaattgg 60  
 gataacgaga agtgacaata gcttaatccg tgttgaccgt cttgaatatc atatcagaga 120  
 agaactgaat aaaacagctt ctgggacat gggtgttttg catcctctga aggttgtaat 180  
 aactaatttg gaagatggaa aagtcataga ccttgatgga aaaaagtggc ctgatgctcc 240  
 tgctgatgaa gcttcgtcct actacaaggt tcctttctca aaaaccgtct acattgaaaa 300  
 aactgatttt cgcgtgaagg actccaaaga ttactatgga ttggctcctg ntaaatctgc 360  
 cctgctgagg tatgcattcc cgataaaatg cacagagggtt atttatggtg ataata 415

<210> 6038  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-B6  
 <400> 6038

gtaccggaca agaattcccg ggtcgacggg gcctctgaaa acgctcagcg agaacgggag 60  
 gggagaggaa tgcgacgaga gctcgatgta gcatgcacgg accagagaga gccaaagggga 120  
 cacggggacg aagaagatac aggagggaaa cgacggcccg ctacagcgcg ttcgtgggag 180  
 cacggtgacg agcgcacagc aggaggcttc cagaggggga gatggctcta ggaggacggt 240  
 gacgacgccg gaaacatgct agacatgggc atacggtgag gggatgagtg catagatggg 300  
 gaggaggaga cagaagcgcc agagcgcgcg ggtgacatgc caaaatggtg gtcaccgcgt 360  
 ggacacgaag ctaacccatg ctctgatcgg acaaatcatg tctggg 406

<210> 6039  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-B7  
  
 <400> 6039

```

attcgcggggt cgacggggaa gaagaaggag gccctcgaga ggctaggcgc cgacggcttc   60
gttgtcagca agaacgccga cgagatgaag gctgcatga gcaccatgga tggcatcata   120
aacacggtgt ctgcaaakat ccccatggcc cctctcttcg ggctactcaa gccaacggc   180
aagatggtca tggtcggcct ccagagaag cctatcgagg tccctccctt tgctctggtt   240
gccaagaaca agaccctggc cgggagcttc atcggcggca tgagggacac ccaggagatg   300
ctggacctcg cggcgaagca tgggtgtgacg gcagacatcg aggtgatcgg cgccgagtac   360
gtgaacacgg ccat                                                    374
  
```

<210> 6040  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-F9  
  
 <400> 6040

```

gcatgatatt tactggactg cttgccggac tgctgcagcg aggaccgagg tatgtatatg   60
ccatatagca ctctcgatgc aacgaaagt acgtccctta cagttttcag catcatgacc   120
gcgtgccaga ttttgacgaa gggcagtggt tgcattgact cgcaatgtga cattacattc   180
acatctgtcc caaaaggatc aacatcatga ccatcataat cgccgtgctc tccgagtaag   240
ttgtcggcag gaacaaaccg aacctcgcaa tcataaaaaa agcggccgccc ccataggatc   300
caaccttacg tcaccgagca tgtgaagtca cagctcttca aaagggtcac ctaaattcca   360
ttcatg                                                    366
  
```

<210> 6041  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A10

<400> 6041

ggtacagtca agaattcccg ggtcgacggg tactctaagt gcttcactta tatcttttga 60  
gctaggcaat attgctctag tgcttcaacta ttatcttttt agagcacgac agtgggttta 120  
ttttatagaa attgttgatc tctcatgctt cacttatatt attttgagag tcttctagaa 180  
cagcatggta atttgctttg gttataaaat tagtcctaata ataatgggca tccaagatag 240  
gtataaaatt agtcctaatt ttcataataa gtgcattgaa tactatgaga agtttgatac 300  
tttatgattg gtttgaggta tgaagatggg gatattagag acatgccagt ggagttattg 360  
tgaatttgag agatacttgt ggtaaagttt gtgattcctg tagcatgcac gtatggtgaa 420  
ccgttatgtg atgaagtgg agcatgattt attt 454

<210> 6042

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A8

<400> 6042

taccggtcca gcattcccg gtcgacgggg aaacctatgt acaacatcaa tatggctagc 60  
ctagacgact aggttcccca tccaggttca agtcctaaac ttgacatggg tgctctcgta 120  
gaaggtgtgt gcgcgtgttg tgagcgtctg cgtctgcatt gtgtttctaa agaaaaaaaa 180  
aatctggctg ccgatcgacg ggtgaagaaa tgccaagaca tcattctgtt gcaaataccc 240  
caccctactc tctgcgagat tcgctaagtt cgttgtgcat tacatactgg aatgcgtag 300  
ttacctagtt acgatcgac tagaacaaca tttgtgtact gagtattcgg acaaagtttg 360  
tttttaaagt gggcaacttt tttgttatga tcc 393

<210> 6043

<211> 429

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-044-Q1-E1-B10

<400> 6043

attccccgggt cgacattccg tgtcatgctc tccgtagcag catggagcaa actctcaaaa 60

gacgcgtgcc atgcaagtgt ccgttggttg ttgggaaaag catacgcatt aatgcatgca 120

tgggatgcac acaaacttta aatgcgtgat cagtgggtcat gtttatctta ctgtatgtca 180

caacgtgtac tgtagaaatt cattgccttt tgtttttcac atgggtcggc catggctata 240

tttctatgaa agcgttgaaa tgtgatttct ttttgtatca cacggctagg caatgatgca 300

tacacgaatg gtaattcact ggcatgaaga catgggtact gccactagg actacacgtg 360

tcgaagttaa gtctgtcatt ctgcangggg caacgggtgct cagatcaaatt gttcatgtca 420

ccatgacgt 429

<210> 6044

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B12

<400> 6044

attccccgggt cgacggggaa gaagctcgat ccgacgggaa gcctcgacgc caccgctgta 60

catagagagg agaagcagag cctgagagtc agtcagcgaa gcttgccatt cgaccgtcca 120

tggaagcact ctgagattca acctaacagt gttggggcct tagcagtgtc ttagctttct 180

aatttccacc aatccatccg tcagtccctt ccggtgtaat gattcttttg aacaagaaaag 240

ggaacccggc cgtgcaacag tagtagctta ggctagctct gcgtatcatc atcatcatct 300

cctttcttct tgtgctaagc ttccaagatc gatcggtaca tagcgcgga cccttcctat 360

ccattctccc tcaaagaga ggggattgca ttgaagatgt gtaatagtat catttgtatt 420

gccattatat atata 435

<210> 6045

<211> 404

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-044-Q1-E1-B2

<400> 6045



gggattcaaa caaaaaaaaa naaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaagggg cgcgccaaaa ggatcaaagc ttacttacct gtgaatgcaa cttcaaacc 180  
 cttcaaaagg gtcacaaaaa ttcaattcac gggccgctgt ttaaaaacgt cttaacggga 240  
 aaaaccctgg ggttacaaaa cttaatcccc ttgaaaaaaa tccccctttc gcaaactggc 300  
 gtaataccaa aaaggccgcg accattcgcc cttccaaaaa tttgccacc ctaaattggca 360  
 aatggaaccc cccctgtacc ggcgaataaa ccccgccggt tttg 404

<210> 6046  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-044-Q1-E1-B6  
 <400> 6046

taccggtcta gaattcccgg gtcgacgggg caagatataa aataaagttt agtttgagtt 60  
 ttacttttct ttacttttct gttgcaatta aaagaaaaga aagaaataaa aagaaaagaa 120  
 ataaacaaaa gaaaagaaat aaatcaagaa gatcatatac taatcttatg gtaggtgatg 180  
 gcaccacata aggaaaagta taagtagaaa attttattag agattgacaa acatagcatt 240  
 agtcaatgat gcaactcatg aaagaattaa taagggaaga gaatattcac atacaaatag 300  
 actatcctac aaatcttttg tgattgtgag ccccatcag aatattatat gccagaattg 360  
 ttgatgttgg acaaggaaca cagcttaatg atttacgttt gttcatattc acatagaaga 420  
 catattgtca tag 433

<210> 6047  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-044-Q1-E1-B7  
 <400> 6047

attcccggtc cgacgggtac cttagtattc aattcactca aaagaaagtt tcacatatct 60  
 tgaacaccaa gtatattaac attaagcaaa ttaccatgtt attaaagact ctcaaaataa 120

tctaagtga gcatgagaga tcaagtttct ttaaaacaaa tccaccaccg tgctctaaaa 180  
gatctaagtg aagtactagg gcagaaatta tcacgctcaa aaagatataa gtgaagcact 240  
atgagcaaat tagcaagctc aaaagatata aggaagcaca tagagtattc tatcaaattt 300  
caaatcatgt atgggtctct caaaaagttg tgtacagcaa ggatgattgt ggtaaactaa 360  
caagcaaaga cacaaataat acaaaacgct ccaagcaaaa cacatatcat gtttgtgaat 420  
aaaaatatag ctccaagt 438

<210> 6048  
<211> 430  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-C6

<400> 6048

taccggtcca gcattcccgg gccgacttcc accaaggacg atatccatca tctcatcgaa 60  
agacgggaca ccattgcctc tatcaagtgg tatcagattt ccagggtgct cggtgagatt 120  
ttacagtttt tcgtagttta gatcgagtct gttcttcata cctacagtcc acgaaaaagc 180  
cacagaaaaa atttaggggt agttcatcat atccgaacca atctgagcct ttgcatagtc 240  
tttttaggggt tttgctttgt tgaatttgcg gttacatcgt cgtgtctagt tgctgggtctt 300  
agagtctagt ctttttagagt ttcgagttct ggtcataagt tgtcacgctg ccgccgcacc 360  
atcatcatcg cccctgccat ctaccaccac cgctccgaat ccgtatccat atagcagcac 420  
caatccgtgt 430

<210> 6049  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-C8

<400> 6049

gtacggtcta gaattcccgg gccgacgggg ccgacaatac gacgatcagg gagtacaaca 60  
tcatggcctt caaggaccac aggaaaacct tggagaagtt cgttcaagag cacattgacc 120  
tcgccgaagc cgctgccact tcacgtcccc ctaccggaca agcagagtaa aagctcgatt 180

gccattatta acctagctag ctgcaaagac gaaggagggt tgttgatgta tcctatttgg 240  
cttccttatg tagtttgetg catcatcggt gtcgagccaa gaacaactac ttatgtatgc 300  
attagtgtat tacgctactt gtcagcgatc gagtctgtct taactcttga gtagtagtaa 360  
tagttgctat caagctgtgc ctgtgcgctt gctcgctata actaattttg tacaacgtaa 420  
tttgtttggc accaagttct gttagtaata at 452

<210> 6050  
<211> 403  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D11

<400> 6050

attgccgggt cgacgggtta acctgagttc attcctcaat tgtagaaaca tctgcgatat 60  
attattgtaa ccaccccatg catgtctaac aacttggatg tattccaatt gtattgtgtc 120  
ttcgccagtc cttagagagc catatttget ttaatcctca catggttaca accataatag 180  
aatgcaccct cagcaatatg tttcatcaca ttgcattaat taaccaggca attaactatt 240  
tacaacattt tatgttccag tcattagtca atcaccatat tgcacattat aacacactcc 300  
tatgacaatg tcaactagtt acacatacca tacgttcgta acaccttgga aatccaacaa 360  
ttgtaattgt ttctcatgta cttgttgcaa ccaaattoga ttt 403

<210> 6051  
<211> 185  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D4

<400> 6051

ttgtggaatc gagtgagctt atcttttgaa atttctggca aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaacaa aaagataaaa aaaaaaaaaa agcggccgcc ctacaggatc 120  
caggcttact tacgcgtgca tgctacatca tatctcttct aaattgtcac ctaaattcat 180  
ttcaa 185

<210> 6052  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D6

<400> 6052

```
attccccgggt cgacgggaaa tcgaagagat gagtggcggg aaacggtagc gtgttttgat 60
atataacaac attaatatag aaaacttagt agagaaggaa gcactagcac aacgcatgct 120
cacagtgctt acccatatac tgcattgtgct atcgaaaggg atgatgattg tcgttcgac 180
tgaggagcatc caacggtgta tacgtacgat ccgtgggggtt tgggtttctcg ccaatcagaa 240
cgcacgaccc agatcacgcg cgcagcagga gggggacatc ggccacgggtt ttgtaggcac 300
acggcttttcg tgagtgaacc gtgtgctatt tgaaaacatt ttatgagaag aatctcgggt 360
tttaaattccc cgtaaattcca aaactcaccg gagaatcgtg acatggcca 409
```

<210> 6053  
 <211> 324  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-E12

<400> 6053

```
cgggtcgaca ctgaagaagg agggctggct gtcaacccca acttctttgt tgatttcggg 60
accgagcctg aaggtccttc cttggcccat gagatgagat atcctgggtg agactgcacc 120
tctgacatat ggatctagga ggaagggtgt aggacacagg cagctggaga tccatgggtgt 180
tgagctcact gtaattaaaa tggctctctc cccgcctgcg gtgttgatg tgatgtggta 240
tcaattggaa taagttcctg atagaacctc tgacattggc ttcattgggag ctttgggccc 300
taataagagt tgcctctgat tctg 324
```

<210> 6054  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-E2

<400> 6054

taccggtccg aacattcccg ggtgcccggg cctgttacac tgtactccct ccgtccggaa 60  
 atacttgtca tcaaatgaa tagaagggga tgtatctaga gtatttccgg acggagggag 120  
 tacatgtcaa catgttgtgt gatattctca gctaagtctg gagtgacagc ggttcctggg 180  
 gagatggata ggacgactgg tctctcaagc tctttcagga tctgcaaaac gcaatgtgaa 240  
 tttcccatga attgatctca acagattgcc aattgtgatg tagtagctaa ttctagaatg 300  
 gagggctaca ttaattaatt caaacctctg aaacggccac gatttccttc gggctataat 360  
 ccgtgccaaa gatgcaatcc aactttactg caaattgaac aatttgggtgc atcatgttac 420  
 cgttg 425

<210> 6055  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-044-Q1-E1-E5  
 <400> 6055

tcccgggtcg agcggggggg acgagagtag agagggggga aaggacttag cgaaattttg 60  
 agccccgggt gccgggattt gagtcagact agcagtagcg cgttttgccg aagacgtgct 120  
 atagcgagga gagctatagc gtgttccagc gaaatgcact acagctattc ctttctgttt 180  
 gatttttctt ttgttttcgt tacagtttta tttgtttcat ttgcctttt gataggtctt 240  
 tcatttgcag ttacttttct acttattttg cgatttattg gcttgggcat agcagtaggg 300  
 ctctacagga tgagcgtgct gcgagagagt ggtagcagt anggggcttc tgggtgaagc 360  
 gctaggacgg agtcctagcc taccggcatg agtgagggaa ttt 403

<210> 6056  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-044-Q1-E1-E7  
 <400> 6056

gtaccggtcc agcattcccg ggtcgacggg gaggcagaga cagagaaccg cacagcggcg 60

gaaagactgc ctggtgccgg agaagatgat ggaccggact caaacaagac aacgtcggaa 120  
gcagctacct cacggtagca ggcgactgat tgtctgctgc caacttggca tgtgactgaa 180  
catgtataaa ataggattat gagttgacaa aggttcaccg cacaggggtgt atactggttc 240  
attctacaat tattttggta aaggtttaat gatcttttgc taaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaaaa aaaaaaaaaa aaacaaaaaa 360  
aaaacccaaa aaaaaaccca acaaacgaaa aaaaaagcgg ccc 403

<210> 6057  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-E8

<400> 6057

attccccgggc cgacgggggtc acatatttcg tgagtctatg ctcatgaccg cactaacaac 60  
aactaaccgg tttggatatt tgatctgagg ggcctctggc ccgatagcac taaccatcac 120  
gtgggcatag tatgggcatt ctgcgtcgta tgcacagcc gaagcttaat agacgtcatg 180  
cgactgagcg gcgcgcgcgc ggttggactt gtaagctccc gccttttttt aaggaggtag 240  
ctagggtctgc tcaccggccg cccacgcaac gtgcaggagt tccccggggc atggcccatg 300  
acccctgggg gcataggttt agtccggcgt gcttgacctc tctattaagt ctaggtcggg 360  
ttgcggcgta ttgtttggac gaggccgggc atgaccagg aaagtgtgtc cgaccggagt 420  
taatcgagcg tgggtgggt 438

<210> 6058  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-044-Q1-E1-G11

<400> 6058

atgcccgggt cgacgggtat tcggaatttg gagaagaacc cgccttgcaa tgccgaagac 60  
aatctgcgcg caggactcat cgtcattgaa tcctggttcg ggggctactg agggagtcct 120  
ggattaggcg gtccttggac agccggacta tctcctttgg ccggactgtt ggactatgaa 180

gatacaagat tgaagatttt gtcccggtgc cgggtgggac tctcctttgc atggaaggca 240  
agcttggtcaa ttccgatata tagatcacct cccttgtaac cgactttgtg taaccctagc 300  
cccctccagt gtctatataa accggagggt ttagtccgta ggacaacgaa aatcataatc 360  
ataggctggc ttctanggtt tagcctctac gatctcgtgg tagattaact cttgtaatac 420  
tcatatcatc aagatcaatc 440

<210> 6059  
<211> 245  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-G5

<400> 6059

taccggtcca gaattcccgg gtcgagcggg aaatacacac ccaccctacc taaattcagg 60  
tagaatacaa tacatttggg attggggcat gcttgtatcg atgcctatgc aagcgttgta 120  
acctgtaaac cgacatactg aaaatgcgag gaacgttaag ttaagaagga aaaaaaaaaa 180  
gaaaaaaaaa aagggcagag acgcgaaaag agaaaaagca agaagaaacg atacatgcaa 240  
cgtca 245

<210> 6060  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-G6

<400> 6060

cgggtgagtt gcgttgcttg gttaccttcc ggcgttgaga gttttgtttc ttaggctggc 60  
aacgtgaaca tcaagcgttg ctgaatatgt gcctgcggct gctgttgatg gtagtagcca 120  
cacattataa ttatatggga tggtccattg tcttgttcac caggttatga ggctttggcc 180  
agggtttttag ctgcagtttc gattttcatt gacaaagaaa aaaaaaaaaa aagaaaagac 240  
gaaacagaag aaaaagtaga aaaggaaaac gggagaaaga aaaaaaaaaa cggccgctct 300  
aaaggatcca accttactta gccttggatg cgacgtcaga cctcttcaat agtttgacct 360  
aaattcagtt 370

<210> 6061  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-H11  
  
 <400> 6061

aattccccggg tcgacgggtg gacgccggtc gtcctcccat agaagcaatt atgtttaatc 60  
 aagaagacat aatgcgttta caatccttag atcatgttg ttataatgaa aatcttagaa 120  
 agagggttcc taccgatatt ctagttgata gaatttctga acttaatgat aattttgata 180  
 ttcaaaacag cgggttgggt tttcctcttg aacaaaggct catgactttt tgccaaatga 240  
 atgcgtacaa tgatgagttg gttgtacaat atgaagggcc aaaggaggaa acaattcatc 300  
 ccgagcttga tcatggggga cttttgtcca ttaaattttg cccttttgat tactttttct 360  
 tatctcaaaa aaaacttgct gctgaacgta gggagtaga gatgagtttt caagattttc 420  
 cctatcatta ttatggcaat accta 445

<210> 6062  
 <211> 253  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-044-Q1-E1-H3  
  
 <400> 6062

taccggtcct atattcncgg gtcgacggga agtagaacia ggccgggtttc gaaggaagtt 60  
 atacctgagg gtccccggga tgctgtagg tgggcccggg aaggccggat ctgccaacac 120  
 aacggaaaca aggaaaaagg ggcaaaaaaa aaaaaaaaaa aaaaaaaaaa aagcggccgc 180  
 tcaaaggat caaagcttac ttacgcgtaa atgaaacttc atacctcttc aaaagtgtca 240  
 ccaaaattca ttt 253

<210> 6063  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-044-Q1-E1-H9

<400> 6063

cgggtcgacg gggtagttcc ctttgtcatc ggtatgttac ttgcccgaga ttcgatcgtc 60  
ggatatctcaa tacctagttc aatcttgtta ccggcaagta tctttaatcg ttctgtaatg 120  
catcatccca caactaactc attagtcaca ttgcttgcaa ggcttatagt gatgtgcatt 180  
actgagaggg cccagcgata cctcttcgat aatcggagtg acaaatocta atctcgatct 240  
atgccaaactc aacaaacacc atcggagaca cctgtagagc atctttataa tcacctagtt 300  
atgttgtgtc gtttgataga acactaagtg ttcctccgat attcgggagt tgcataatct 360  
catagtcata ggaacatgta taagttatga ataaagcaat atcaataaac taaacgatca 420  
tagtgctaag ctaacgcact ac 442

<210> 6064

<211> 160

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G1

<400> 6064

attgcatgca cacatatata cgaccaataa aaaaaaatg aatatttttag aaatataaaa 60  
taaaataaga aataaaaaag cggtgctct agaggttcca agcttacgta ctcttgggtg 120  
ggacgtcata gttcttctat attttcactt aatttcaatt 160

<210> 6065

<211> 376

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-A11

<400> 6065

ggctgaccac tgggcgccta ctaacaccaa caggcgcacc tgacgctata ccgtgtgttt 60  
tcaatcaaga agcctggaaa aaacgtgct gcaaaaggca aaacaacggc taggggggtg 120  
acttgtagac tgggatgtat cccaacacgt ggagccgagg acaatgcgta cgtgcgtgca 180  
cacacacatg tgctgtacat gtgatgaata ctgaataatc gagtcagatg accgcctgtg 240

gtcgtcgtct cgaccgcctc gtacatgtag acgttgcaca acacctgtac atgtgattga 300  
 ataaccgaaa aaaaagaaaa taaaaaaaaa aaaaaaaaaa aaaaaaaaaa gcggccgctc 360  
 tagaggatcc aagctt 376

<210> 6066  
 <211> 267  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-C2  
 <400> 6066

tgcgactgcg tccgcgattg cgactgggaa atgagcccgg atgtccgcag tcagattaca 60  
 tcaactaagc ggcatgtact cacaacacag cagggttcaa ggattgaaga ggaactggga 120  
 gatgtactcc gccgtccagt cttcaatagc aagctgatgc aacctgagat tgttgattata 180  
 agaaaaagcg gccgctctac aggatcaacc ttacttacgc atgcatgcaa catcataatt 240  
 cttcgagatc gtcactcaaa ttcaatt 267

<210> 6067  
 <211> 141  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-046-Q1-E1-D3  
 <400> 6067

caagtaggaa ggatcttatg ttggtacaaa anannnnnnn nnnnnaaaaa aaaaaaagcg 60  
 gcggtcccaa aaggttcaag cctaacttac cttgaaggc aagttaaaac tcctccaaaa 120  
 gggccaccaa atttaattta a 141

<210> 6068  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E11  
 <400> 6068

cgggtccaaa ttccggggac gacggggcaa catgactcgc atcctgcact gcgacaagga 60

actgccgccg gaggcctca atatgtacat ctcccaaagc tgcctcagcc tggcaccatg 120  
 tacacagggtg gattgtcaca gggcatgttg gatcagatgc gtccatatgc acccgtgacc 180  
 caggccaaat ccgggtccaa ctgccggcgg agtctccaag tcgggtccat cgccatgacc 240  
 tgctactccc atgtaccgt ccctgtcacc catgccgcct gaaccatgcc ccactgatgc 300  
 cacctaattgc gcccaagaca aagccgatgc cgccgtgccc gccactagct gtatccgcgt 360  
 cgagcaacac cagcaacaac tgctgggtgt acgtgacgac gtctatgcac acatacttcc 420  
 aagtgaacac gccatatattt c 441

<210> 6069  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E9  
 <400> 6069

attccccgga cgacggggag gctgaaaagc tgattggcag gatagtgaag tggctgaagc 60  
 ccggtgggca tattttcatc agggaatcgt gcttccacca gtctggggat tccaagagga 120  
 aagtgaaccc gacgcactac cgggagccga ggttctacac caaggtgttt aaggaatgcc 180  
 acttctatga ccaagagggg aattcctttg agctttctct ggtaacttcc aagtgcattg 240  
 gagcttatgt gaaaagcaag aagaaccaga accagatatg ttggctgtgg gagaaggcca 300  
 agtgcacaga agacaaaggc ttccagagat tcctggacaa tgtgcagtac aaatccactg 360  
 gaatcttgcg ttatgagcgc gtatttgggg agggttatgt tagcaccggt ggattcgaga 420  
 ccac 424

<210> 6070  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-F5  
 <400> 6070

gggtcgacgg ggcattccat ctttcgtctt cgtctatcgg taactttact tgaggctata 60  
 tttttattca ccacatgata tgtgttttgc ttggagcgtc ttgtatgatt tgagtctttg 120

cttttttagtt taccacaatc atccttgctg tacacacctt ttgggagaga cacgcatgaa 180  
 tcatgattta ttagaatact ctatgtgctt cacttatatt ttttgagcta ggcaatatcg 240  
 ctctagtgtc tcacttatat ctttttatag cacggcgggtg gttttatttt atagaaattg 300  
 ttgaactctc atgcttcact tatatcattt tgagagtctt ttacaatata atggtaattt 360  
 gcttgggtta aaagactaat cct 383

<210> 6071  
 <211> 151  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-G7  
 <400> 6071

gggtcgacgg ggaccacaaa acggcggagg agcacaagaa gaaggacggg gagcacacga 60  
 acgacggcta tgcacactga gggcatcatg gataagatca tggacaacat cagcggctac 120  
 cgccacgggt acggcaagaa ggactgcgac c 151

<210> 6072  
 <211> 176  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-H2  
 <400> 6072

atcactttgc cctcaattag aaagaaattt ccggttaaatt caagttccta aaaaaaaagc 60  
 caaaaaaaaa aaaaaaaaaa aaaaaaaaaa acgggccgcc caaaaggatc aaacctaacg 120  
 taccctgtaa ggcaacgtca aacccttca aaagggtcac caaaattcaa ttcattg 176

<210> 6073  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-H5  
 <400> 6073

attcacgggt cgactgcgga gttgatctcg gatgtgtaca gaataattcc tcgctatcag 60

gtggtaataa cgcaccggaa cggacgctgt tcttgatgcg cggaatggca aggcaaagca 120  
 ttctttcacc gagcaatggg gattgacgac ttgattacag acaagataga tttggcacat 180  
 tcttacctgt aaagataatt tgccaaataa agccgtttat aagctttgcc actttgataa 240  
 tctcttgtag tgacacaatt tgaaagaatt cctttgaaaa aaaaaaaaaat aaaaaaata 300  
 aaaaaaatg aaccttaagc aaaactacgt aaaaaaagt tagaaccccc tcatgaagat 360  
 caattataaa aattatctta gaatgccaaag aaatggctgc tacaattggg acaccaaata 420  
 ctcggtaaac aaaaaggggg gggc 444

<210> 6074  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-H7  
 <400> 6074

gtcgacggga gactccagtg gaacatttgg cgatcctggg ggtcttgtca cggctcggac 60  
 gcacgcattt gacgtgcact acatcaacta cgattgatgt caccgtagat ctgtaacatg 120  
 aatttgggtc agatataagg gggaagtgc aatatgaatc aataccaacc ttgtatactt 180  
 gttaccctta ttctgattgc atgatgggtc aatgcttagt gcattcccaa taacatgcaa 240  
 cgtatggtga accgttatgt gatgaagtcg gagcatgatt tatttattga ttgccttcct 300  
 tatgagtggc ggtcggggac gagcaatggg cttttcttac caatctatcc ccctaagagc 360  
 atgcgcgtaa tactttgttt cgataactaa aagatttttg caataagtat gtgagttctt 420  
 tatgactaaa gttaagtcca tggattatat ttaaacacac cttcca 467

<210> 6075  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-A1  
 <400> 6075

cgggtccagaa ttcccgggtc gacggggaaa ggggggaatg gaggacttag caaaatattg 60  
 agccagtggg tggtaattc agaagtagca gtagcgcgtt caagaaagca cgctactgct 120

aagtttagcta tagcgcatte tggtatacac gctactgeta ctcttttctc ttttttccct 180  
 ttttcattta tttttcttca cattttatnt tttcttttca cettatttga tttctttcat 240  
 tctcaattac cttttctatnt gctttcaatt taatnttata tccttttagca gtagcgagtt 300  
 tagaagaaaa cacgttgcta caaaggacgt agcggttagcg cggttcaata tggatcgcta 360  
 ctactatgtg tagcctatcg gctaagccgt gggaataat 399

<210> 6076  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-047-Q1-E1-A2  
 <400> 6076

cgggtgcagaa ttncggggac gacgggtcgc cttgaggtaa cagaattaag tttattagaa 60  
 tgaagatgta aaataggagg aaaagtgcct acagatcgca tccagggtgct gcagaaaaca 120  
 gtgggttaaac ttatttagta tagcatttat ttgaggcact tgggcctaatt attgaaatat 180  
 taagatagag atttaaatta tgtactcttg ttttgtaaac actatcttgc aattgcttcg 240  
 tggaccatgg gagggatgat tcctagaagc catgttttcc aataatttca acagctctgt 300  
 gttaagtagc ttagttatta atttttatnt ctgtagtata atcctgggag gttgctggac 360  
 caggaaacat aatctcatcg gtaatttcct aaggaaaata ttaggggttc tctgttgatga 420  
 attttttt 427

<210> 6077  
 <211> 237  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-A3  
 <400> 6077

gtgtccattg gggttcagctc gatgaaaata ggaatggtta agctcaaaat tgaacaattc 60  
 atccatcaaa gggtgccctt tgatggataa tttgatagaa caacactatg gaaaaagggt 120  
 gtgaaaaaat tttcaaaata tcaaattgaa aaaaatcggc cgctctaaag gtttcaagct 180

tactttcccg tgcattgacgac tttttacctc ttctaaagtg tcccctaatt tcaattt 237

<210> 6078

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-A8

<400> 6078

attcccgggt cgaagggtat ctcaactact acttctggct gtgggcgggg atcggcgcg 60

tgaactttgt tgtgtacacg gcattcgcca agaattacac ggtgaagaaa gtcgagcccc 120

ggtgaacacg gtttgcgtgc ggtcacaggc gtacgttttt catcctcttt gttgtgtatg 180

taccgtctac aaaaccagtt cgatgtaatt aaatatcgcc caaaattcct gtagctgtgt 240

tcatttgaat aaatataaaa ggtgcctttg gaacagaaaa aaaaataaag tcacaataaa 300

aaaaataaaaa aaaaaaatac aatagaacgt aacatgcaaa aaaaaaactg cacacactaa 360

caaaaaaggg gccgccctaa aggttccaac ctt 393

<210> 6079

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-B12

<400> 6079

gtaccgggtct acaattcccg ggccgacggg tcagaaaact gctgaagaag cctctctgct 60

caccattggc gctttccgtg ggaagtgata gcaatggaag cggagctgta gctcttctga 120

aaattgcaag gatcttttca caaatctatt caagccttaa gaccagaagc aagtttaatc 180

ttctctttgg attaacatct ggctgaccct acaattaaaa tggaactagc aaggttatca 240

atTTTTTTta cagcggcttg aagttttgac caacatgtgc gtgatattat tgactatgca 300

atttacttaa gtatcattag ttcttagagc aatgatctct ggatgcatgt atcaaagcct 360

ccagagaagc cttacatcaa gcaaactctt gaggatTTTT cggatgtctc caaggaaatg 420

ggcatttcag tcgcac 436

<210> 6080

<211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-B7  
  
 <400> 6080

aattcccggtg tcgacgggtg cctacaagcc tcatcatgca tggctcttca agaagggtca 60  
 tcctcacggc caggtatatg ggtataggag ctccctctgg gcagaacacc ttggtatggt 120  
 tgatgaccac ttcaaggaac cttctagtct tgaatgtgta agattagtga accaaatagc 180  
 cgaagaaaac tgggaaagat tcgcgtcaga agagatgaaa acgttgcaag ggcacctcct 240  
 cagataccca gtgaaggtag agcacgatgg taagatcgtc ccgctgccc accaagaatg 300  
 cttccccgat gttggcggca agatctcgga cgctccgacc tcgcttctctg attcgctgac 360  
 gatgtagcgt cacagtactg acttctcttc agggccaag ctggttcttt tgctcacctg 420

<210> 6081  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-B8  
  
 <400> 6081

gtaccggtcg acaattcccg gttcgacggg gatggcgacg ctcaccaccg ccacctcct 60  
 tcttaaagcg tccgcgagcg cgagcccgga cggtcagaag cagcgctacc cagacctgac 120  
 caaggccgac gaggaatgct ttgaaacctg ctacaaggag ctgaccaatg gcggcgaaaa 180  
 actcgacaat ttgtgcacca gcatagaggg ctcgagcagc atcggcatgg ctcagctccc 240  
 cgaaatccgc agcttcatca aggagaacaa cggggcgcat gccagtgga attgcatag 300  
 gtgtcgccct gcaaatacga agaagacacc cgacgatgct tccaagaaga acgatgccga 360  
 gaaggccatg gctgtcctgg atgtgctcgt taacaaagt accaagtaca gaaaaacaaa 420  
 ctctc 425

<210> 6082  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-047-Q1-E1-C10

<400> 6082

cggtcaacaa ttcccggtc gacggggaga tacagaatgg ttctcgaag gcaatttcga 60  
gagctatgtg cggaagatga ggaagcctca cgctgggga ggagaacctg agctgctcat 120  
gtgctcacat gttcttgga tgcccatcac cgtccacatg tacaccaagg gcaccgataa 180  
ccccaggatc atagcagagt atggccagga gtacggcaag gacaaccgg tccgtgttct 240  
atacgacggt tatgggcact acgacgcgt gcagccatct cttgtaagaa cacaaccaag 300  
actgagagga gcgtagctaa ccggagaatg gtgcgctatg taagcttctt ctactacttc 360  
tctagggcag ccgcataaat tccgacatct gctgcaactt ggtttcgttc gagttggcag 420  
atcacggtat agcaca 436

<210> 6083

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-C11

<400> 6083

taccggtcaa caattccgg gtcgacgggt tacataaaaa ataaaaacgc caaagaatat 60  
atztatgcgg aagttagata tgagcatcac ttcaaacatt actatgtaca aattcatctg 120  
agtgaattgt tccagctttt caatctgcgc gagctcgaca aatctatcat cagttgctac 180  
gttctgtaag tgattatatt ctaccccatc tcgttcatat tgcctgcact atatatatgt 240  
cctaactata ttgttgtgtc cgctattata catgcagaat gaagattaag gaatgcagag 300  
taaggaacat ccatgatgtt gggttcattg acccacacat cgttaatgaa tatgtgttgg 360  
agcatcacc cgccgacatg gaggcagacc tgtggcagtt tcttaciaag caggaactca 420  
aaagtgatat tctatttcc 439

<210> 6084

<211> 203

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-C3

<400> 6084

gtgagtcgta ctacacgata cacgcttacg aacacacgaa tgacgagcta gcacactcat 60  
cgcatgtgtc accaagatca cagttcacat cacctcctac tgcaacaggg aacttggcga 120  
caacgctaac gatggacaac attaatacacc atgccacaca tcaccgctac ggcaacacgg 180  
gccacaactg ccatgccacc acc 203

<210> 6085

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-C5

<400> 6085

aattccccggg tcgacgggtg aggtgatacg atcttgatat atcacgagct ttgctattat 60  
agttggatct tatgtttctc ctccccctct actctcttgt aatgaaatga gtttccccctt 120  
tgaagttatc ttattcgatt gagtctttaa agatttgaga aactttaatg tatgtcttgc 180  
cgtgcgtatc tgtggtgaca atgggatacc acgtgattca cttgatgtat gttttggtga 240  
tcaacttgcg ggttccgaca atgaaccaat gcatagggtt ggcatatgtt ttcgtcatga 300  
ttctcctgta ggaactttgg ggcactcttt gaggttctat gtgttggttg aatagatgaa 360  
tctgagattg tgtgacgcat atcgtataat catacccagg gataact 406

<210> 6086

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-D10

<400> 6086

taccggtcaa caattccccg gtcgacggga tgtgtgagat ctggctatct agttgtttat 60  
ccttagtagc ctctcttacc gggaaatgtc tcctagtgtt tccactgagc catggtagct 120  
tgctactgct ccggaacact taggctggcc ggcatgtgtc cttcttcgtt cctgtgtctg 180  
tcccttcggg gaaatgtcac gcgatgaata ccggagtcct gttagcccg c tacagcccg 240  
ttcaccggag tcctgctagc ccagtgtac agtctggatt cactcgctga tgaccgacac 300

gttcgatgct gggtcacgga tgctgtccc tgtaagttag tgccactttg ggttcacgac 360  
tagccatgtc agcccggtt cttgtcata tggatgctag cgacactatc atatacatga 420  
gccaaaaggc gcaaacg 437

<210> 6087  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-D11  
  
<400> 6087

taccggtcta caattcccg ggcgacgtgg ggagcaacgg cggcaagtgg gactgggtgg 60  
atggtgttcc tggatatggt gatggtgtat accgcggtt tgtgttcgac ggtgggttca 120  
cagcaatgcc gtgaccgcg aggtcatgg aaaaagatat ccagactgg tgcgtgacta 180  
aatgcgtca actaacgatt ttccattgat ctgggacatc catctactgc tgaagaggaa 240  
ctgatatctc catacatatt attacatcg tacttggttc ttagcttgat gaaatacttc 300  
cagttgttgt acttaatgaa catgaaatga tctgttggtt cgttgtttca gacattgaaa 360  
tgatgcagac tggtatatgt ttagacgata aaatgttaaa tgcgcattt ataggaac 418

<210> 6088  
<211> 416  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-047-Q1-E1-D12  
  
<400> 6088

attcccgggt cgacatgccg ccaaagagga ggcgcttgg ctccagcacc aggatgagct 60  
gaactcccag gaggaggacc ttgccgcttg cgaggagaag ctgccgtga cactccgtga 120  
caaggacgag gaggtccagg agctcgatc gcagcggatc cgggaactgg aggagaggca 180  
cgaggagggc ctcaatgctt aggccaggc ccatgccggc aaggtggacg agctggaggc 240  
agagcgtgac gggctgaaga ggcaggtcca ggagctaacg gggtagaggg acgcggccaa 300  
gggtgctttg gtcacgcat aggccgtagt cctcgagaag gccgcgtac tctccatggc 360  
caacgagtcc atcaaggaca tgaacctgaa gctgganggc attgaaggga cactct 416

<210> 6089  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-D2  
 <400> 6089

attcccggga cgacgggggg gcctagccgg agttgacgat tccggcgagg cagggccgtt 60  
 ccagcagctc caacagcacc atcgcggccg gtggagcacc acgaacaccc aggagaggtc 120  
 gaaggaagat gaggggcgcc ggaggaagca gaatgccgag gcgcgggtcgg cggcgagctc 180  
 cagagcaaga cggcggccag agggccgcct gtcctggacg cggttatcta gaggaagtgt 240  
 gggcgccata ggaggagggt ggtgtggtcg aacgggctcg gaggggtctt atttataggc 300  
 ggggcgagga aggggatcga gagcaccggc gagctctctt ggaggaggtg cacgacgacg 360  
 agaggcgctca gggagagaga ggcgggagtg gtcaggggtc a 401

<210> 6090  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-D6  
 <400> 6090

taccggtcta caattcccgg gccgacgggg atgggacgta agactgcaat ctttctccaa 60  
 ttatctacct ggattattat attcgggtgc tatgttgttt accgtttact attagccagt 120  
 atgtgcaaaa aagggaagat ctgagatgga gcaaaccaat tcatggctct tctaacgcga 180  
 atgtagatgc gtcatacaat gaggattaag cagcaccatg tgccacatga gctgttatgc 240  
 atgatgaggg ggtcaattc attgccatag caacgtagtt tataacatac gtaccgaatg 300  
 cggaagccgc tgaaacactc gcccttcgaa ttgggtcttct tccggctgag cagccaggat 360  
 gtaacaaact gatggcgcca tggcggaatc tgattgttcc ctggttatcg atgctatcaa 420  
 cgatgctgag aact 434

<210> 6091  
 <211> 429

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-D8  
 <400> 6091

cggtctacaa ttcccgggtc gaaaggagtg ggtaattatg aaattgagaa atacttttgt 60  
 tgaagttggc aagtcccata gcatgcacgt atggtaaaag ttgtgtgaca aatttggtgc 120  
 atgaggtgct cttttcattg tcttccttat gagtggcaga cggggacgag cgatgggtctt 180  
 ctctaccaa tctatccctc ttggggcatg cgtagtagac ttttgcaata agtatatgag 240  
 ttctttttga ctaatgtgag tccatggata taagcacact catccttcca ttttgctagc 300  
 ctttattatt accgagcaac ttctgccgtg atcatgaacc ctttatttac cttcctcaaa 360  
 acagccacca tacctaccta ttatggcatt tccatagcca ttccgagata tattgccatg 420  
 caactctcc 429

<210> 6092  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-E10  
 <400> 6092

taccggtcaa gaattcccgg gtcgacgggg ctgacgacgg ggatgtcgga ctggagcgag 60  
 tgcccggagc tggggccgat cggggacctg cttgtgtcca aggacttcca gaccaaggcg 120  
 tccgtgctgg tgggtgcagtc ctatgggagg gcggcgccgg cggcgccgc gtcgacgtct 180  
 tctgaatttg ctgttggcga ggccgtcttg ccggcgccag aggccatcat gccggcgacc 240  
 tccatggggc acccgccaag gcgcccacga caacattcac attctgacct tatgctttga 300  
 tagtagtata gtttggtaaa gcttgctagc acattgatta attaatatt taattaggga 360  
 gcgcctaatt ttgagcggg aattaggaag tgtctgatga tcagtcgagt gatgttaatt 420  
 tgggtgacag tcaaacatt 439

<210> 6093  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-E12

<400> 6093

taccggtcta gaattcccg ggcgacggga gcagccacac cgaccactac ccgaggggacc 60  
acaagatctt caaggacccc atctccttcc acaagcgtgg gttcgagttc atcaggcgca 120  
ccttcatgga caagcagaac gtgaggtctg actgcaagag gttcagacct gtgctgctgg 180  
aggcactgga caacctcaac cagtaaattt aaggcaactt gccaccatt tttaccattc 240  
gtttcgtgaa atttgatgtt cattctctca tggcgtgtat gtatgggtcta aactatagag 300  
attttgtcta ggaattactc gtgtaaactg tataaattaa attgcccggc gctgcaaaga 360  
tggaacgaaa ttcattgaaa aaaaaaagg ataatacaaa aaaaagaaaa aaaaagaaaa 420  
aaaagaggaa caac 434

<210> 6094

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-E6

<400> 6094

taccggtcaa gaattcccg gtcgacgggt gccccatagc gaccagctga agtagctggt 60  
cgagctccac aaggcgggccg aacaggtcat gaagggcctc atagttcggc tgtggcctaa 120  
ggaggccatg tctgggagct actttggcct ggtgcggcgg ctggtggatg cgtgctcgtg 180  
ggttgaagtc atcaagcact ccgcctgtat tgaaggtgcc cgtcggggccc ttgccgcgcg 240  
aaaggtgcac tggggcaaga tggatgccca gaagctcgtg acggaccgcg caccagaggg 300  
caaggagcat tacacgcccg agatgtatta taagagtgtg ctgaagggcg cccgcactat 360  
tgcggtgag tgcctcaaag atgtaattt tgagtagact cgcattttgt tatcctgtgc 420  
gttgaaaac 429

<210> 6095

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-E7

<400> 6095

cggtctagaa ttcccgggtc gacgggaggt cgaaggtgtt gcctacaacg aggcctatcc 60  
gacgcaggac ttctttgtcg ttaccaaagt ctacagtaac gaatttgact aggttgctct 120  
cgaggaagtt cttaaaattc tggcactcaa catcggcacg gcatatgtgg tagaccaagc 180  
ataagtcacg cacgcaaacc tggatcacga cgggcttctt cctctcttca tccttttagat 240  
ccttctctcg tcccaggact atggtgtact caacatctag cccagcgacc cactcatcat 300  
ctgagtcttt gaacatgcgt ctgaagcgag aaaggcatcc tttcaccatc gcggaagaac 360  
gggtgtagat gacgtcgaac tcatcgccgg tgatggttct aaccttgtag tcaccgccga 420  
tcgtgg 426

<210> 6096

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-E8

<400> 6096

taccggtcta gaattcccgg gccgacgatg ccggtacct gcatttcttt acccaagtcg 60  
tgacctgcca tgaaagcagg gccgctaggg ctcgtcagct cattaaggag aagagtcggt 120  
atctccctgg gcggtgattc tcgcgcgtct tcagctacct tctcagcctg gatccggatt 180  
ttgacttcaa caccgcgata gccccctgc ccggggctgt acagggcgac ctggcgagat 240  
gggtggacga tcattctgac gacctgatta aggagtttgc tcttgctgac gacgtggctg 300  
cactcgcaac caaggagggc ggagccaacg atgatggcga caacgacgat atgggcaaca 360  
tcgcgtcccg ctaggcctgt acttctttgc tcttcctg 398

<210> 6097

<211> 266

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-F11

<400> 6097

tacggtcaag aattcccggg tcgacgggaa ttaccacagg ttgtcgccg gcgagcgctg 60

agcggcacgg cggtggctgc agagtTTTTT ggctgcagag ttagcatagg gtgttttttag 120  
 ttcttagttt cttagtttt tctagctttg accgatgtat ggtccgaaaa tgtctgtaat 180  
 ttttaagcttt tttgtgtaac tttttcttgc tgtgtttata ttttttttct ctctatgtaa 240  
 tgacatgagc atttttttaag aaaaat 266

<210> 6098  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-F12  
 <400> 6098

attccccgggt cgaagggatg gaccaccggg acccttccgg tgggtcccgggt acaataacctg 60  
 tgaccacctga aactttctcg atggccgaaa cctgacttcc tatatataat tctttacctc 120  
 cggaccattc cggaactcct cgtgacgttc gggatctcat ccgggactcc gaacaacttt 180  
 cgggttactg catactaata tctctacaac cctagcgtca ccgaacctta agtgtgtaga 240  
 ctctaggggt tcgggagaca cgcagacatg accgagacga ctctccggtc aataaccaac 300  
 agagtaatct ggatacccat gttggctccc acatgtcctt cgatgatctc atcgaatgaa 360  
 ccacgatgtc gaggattcaa tcaaccccgt atacaattcc ctttgtcaat cgatacgtta 420  
 cttgcc 426

<210> 6099  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-F3  
 <400> 6099

attccccgga cgacgggagg cccaaaaacg tgaccacggc gctgcacccg gagatgatcc 60  
 tggcggcgac caacaccggc gacatcatgg acgcctaagc aaagcactga tccacggaca 120  
 ccaaggcgta cgtacgctgg agtttggggg cgcaagatca ataagatggc tcggtgaaac 180  
 agacgatgct tagggacgag ggcttgtctt tgtgatttgt caaactcgtg tttaattccg 240  
 atgtctgtct ttagttttcg tgtgttaacg taatttgttc atgccacctg accgccatgt 300



gctctgccct gcctctacct cgcggcaatt ccatggagga tgaaaccttc tggaacatga 360  
 ggaggaata aa 372

<210> 6100  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-F6  
 <400> 6100

taccggtcga caattcccg ggcgacgggc gtcccggtt tgataacagg gagatgggtt 60  
 cctacctcat gcattctact gaactacaag aattcaatat cactactgga gggattatga 120  
 atggtgacaa taaatgcaat aaaacatagg tgtgaataac atggttaaata tgaacttacc 180  
 tggttaagttg atgaagatgt taacgctctt ggaaactttg ataaactatt cgttactcca 240  
 agaaaatcta tatagtcaaa cattgcattc acataagcaa caatcctagc aatcaattat 300  
 accaatcaaa aagcaataaa taaagcaata atgatttcaa agaaaatcaa ataaaattcc 360  
 aaagaaaact ctaaagaaaa caagggcgaa accaactcac agaatatcaa tcaatactcg 420  
 cataacaact ctaaact 437

<210> 6101  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-F7  
 <400> 6101

cgggtcaagaa ttcccggttc gactttgacg atcagactac gaacgtgcga tgacgtcgcg 60  
 ccttagcaat cgctaaacca actccgagag gttattgacc acgccggagc acgattaacc 120  
 tgaccacgag ggtctgtttc ctgagagcaa acgaagaaca agcaagaaac tgagattgca 180  
 atctggatat tgcgaatata agatgaaagc tttattgatc aaggtggggt tctgtgacgc 240  
 ctttgtctgg tcgttgaaca caaacgaagt acgcgaagtt gcggctatgg cgaactttta 300  
 atctaaacaa aacccaaagt ctaaacgacg ccctaagggc tgtatatatg gaggaagagg 360  
 gggaatttcg tggcccttgg ggaaggggtc cgaaaccaac cctatctctt gtttcccc 418

<210> 6102  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G1

<400> 6102

```
ccggggcaga attcccgga cgacgggaga acggtctagg gtaccaaggg tttatgatgt 60
ctcgttgttt ttgcatgcta gcaagtgact ccgggatgcc agttttaaga tttcgcttgt 120
gttgaaagat attattatta ttactgcttg tagcctacct gggataccgt catattttgc 180
tgattatgga acccctttta tcctgcttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaaaaaaaa aaaaaaaaaa 300
aaaaaaaaagc ggccgccta aaggttccaa cttacttac ccgtgcatgc aacgtcaaac 360
cccttctaaa gggtcaccta atttcaattc 390
```

<210> 6103  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G10

<400> 6103

```
taccggtcaa gaattcccg gcccacggga gatggaattg aaagagaagt ttgaaaagaa 60
ccttcaagag gcagcagata agtaccaaaa caccaacttg tatctgaaga acttagatga 120
tactgttgat gatgaaaagt tgcgagaact ttttgctgag ttcggaacta ttacttcctg 180
caaggttatg cgtgattcaa atggcgcaag cagaggttct ggatttggtg cttttaaatc 240
cgctgatgat gcttcccgag ctcttgctga aatgaacaac aagatgggtg gcaataaacc 300
actttatgtt gcactcgac agcgcaagga agacaggaaa gctaggctgc aggcacagtt 360
ttcaciaatg cgtcccgttc caatggctcc aaccgttggc cctcgatgc aaatgttacc 420
tcctggtggt ccagtcggtc aac 443
```

<210> 6104  
 <211> 436

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G11

<400> 6104

gtaccggtcc agaattcccg ggtcgacggg tcctattact gttgtgcctc acgaaaatat 60  
aattgtggaa gatgatgcac ttgatgatga tctcgttatg cctattgctt gttgtgatga 120  
ttattattgg gaagataatg atacttttat gatcttgaaa atctttttgg cacttgcttg 180  
gaagaatatg ataattgcta tactattggg gctatccata ctattaatga tgagagtgat 240  
tatgcttatg atatgaaaag gaccaagctt ggggatgcta tgtttgatga gagtgacatt 300  
tttgagaata tattttctgc aattaatgtt tgtcccaagc ttggggatgc tacgtttaat 360  
gaagatgata cttttagtct gccaaagttt gatatgcaaa tttataatga tgatagaatg 420  
cctcctactt atgatg 436

<210> 6105  
<211> 471  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G3

<400> 6105

cggtgcagaa ttcccgggac gacgggtttg gcacaattgc ctgtttgctt gcctggctag 60  
tccaaagtca tgatattttt gttatagaat tatttttcat agtctaaaat aattagagat 120  
aaatattggg gccatgcgta gctatcatca tgggtagcaa gttatttctc tatgcacaat 180  
gccttcctct caaagtctgg ctctttttgt tttgcgaggg aaagtcttgc tctttttaac 240  
gggcaacgat gcaacgactc cttatgcat acacaaataa gtgtaccccg ctaagctcgc 300  
acgtatacca caactcattc actctattgt caaattttca cacactatac tagaagttta 360  
ttttaaaaag aatgcctcgt tagcactagt aattctgtta ccaaataat gtacatcctc 420  
ctttagttcc tccaagtcta acaaaacttt cccgtaaaaa aatgtcatat c 471

<210> 6106  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-047-Q1-E1-G7

<400> 6106

taccggtcaa gaattcccgg gtcgacgggg agccatagga atcttgcttg tttatgacgt 60  
cacggacgag tcattctttca acaacatacg gaactgggta cgcaacattg agcaacatgc 120  
ctctgataat gtgaacaaaa ttttgatagg caacaaggct gatatggatg agagtaaaag 180  
ggctgtttct actgcaaagg gacaagcact agccgatgaa tatggcatcc agttctttga 240  
aactagtgcc aagacaaacc tcaatgtgga gcaagttttc ttttccattg cccgagatat 300  
taagcagagg cttgctgaga ctgattccaa gcccgaggac cggacgatca agattaacaa 360  
gacagaaggt tctgagaatc cagaatctca gaaatctgcc tgctgtggct catgangagt 420  
a 421

<210> 6107  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G9

<400> 6107

taccggtcaa gaattcccgg gtcgacgggg ggctctagga ctcgctcttc aactggctcc 60  
gaagcctgtt ctttaagcag gagatggagc tctccctggg tggcctacag aatgctggga 120  
agacatctct agtcaattca attgctaccg gtggatacag cgaggacatg attccaactg 180  
taggctttta tatgcggaaa gtcaccaagg gaaatgtcac aattaaactt tgggatcttg 240  
gagggcaacg tagattccgg actatgtggg agcgctactg tcgtggagtt acggctattc 300  
tatacgttgt cgatgctgct gaccgggata gcgttccgat tgctaaaagt gaattgcatg 360  
acctgctgac aaaacaatct ttatctggga tccccttact tatecttggc aacaaaattg 420  
acaagtcaga ggcacttt 438

<210> 6108  
<211> 423  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-H3

<400> 6108

cggtgcagaa ttcccgggac gacggggcat ttaaattaga gatgacaaaa aacatgtcta 60  
caatgggtca tttcttagcc ttatcttaaa taataactag ttattcctaa aaacgtgggtg 120  
agacatattg ttttaagaga ttatctcatg tcttctctta aataagagaa gacaagcatt 180  
ctcttagggc atgtaaaatg gttgataaga cagtcttatc ttaagtcttg catgtaatta 240  
gagggcagccc attaggtcat gtacaatggc tcataagata gtcttatatt aagtcttgca 300  
tttaatttag aaatgacaaa aaacatgtct acaatgggtc atctcttagc cttatcttca 360  
ataataacta gctatttcta aaaatgtggt gagacatatt gttctaagag attatatcat 420  
gtc 423

<210> 6109

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-H5

<400> 6109

taccggtcca caattcccgg ttcgacgggg agtgaacaaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa gggggccccc ccaaagggtc caattttttt ttcccttcat tcgcactcca 240  
aaccctccc aatgggtccc ccaattttat ttccagggcc ctttttttaa aacctttttc 300  
cgggaaaacc ccgggggttc cccaatttaa ccccttttga aaaaaccccc ttttcccaa 360  
gggggtttta tccaaatggc cccccccctt ttcccttcc aaaaattttc cccc 414

<210> 6110

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-H7

<400> 6110

cgggtcaagaa ttcccgggtc gacggggaag atgacttggt tataagctca gttgcctctt 60  
 gctcaaattt gtgggctcta ataatggatg ctggcactgg ctttacttct caagtctatg 120  
 aactttctcc atattttctt cacaaggaat ggataatgga gcagtgggag aagaacttct 180  
 atatcactgc gttagcaggt gcaaacaatg gtagttctct ggtgggtcatg tctagaggaa 240  
 cacaatatgc acagcaatcc tacaaagtag gtgactcggt tcccttcaag tggataaaca 300  
 agaagtggaa ggagggtttt tacgtcacag ctatggccac tgcaggaagc cgatgggcag 360  
 tggtcgtgtc ccggaatgct ggctttgtag atcaggttgt ggagcttgac 410

<210> 6111  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-H9  
 <400> 6111

taccgggtcga gaattcccgg gccgacggga agcagaagtt gtggcgcggt tggcatcgga 60  
 aatggatgtg atgaagaaaa ccgtgagtgt actagtagcc gaacgagatg cagctcgggc 120  
 gcagcatgaa gatcatccag cggtatctcag aagccagcag cggagaagca gtgtggcttc 180  
 cacggaggcc ccacctgctg gtgcagatgc accgacgac gaaattactg caccggagcc 240  
 tctggtggtc gaaattactg caccggagcc tctggtggtc gaaattactg caccggagcc 300  
 tcctcgctac cccgtggacg atataaagga gatgaaagaa tgtcatctgt attatcctat 360  
 cgggaacatg tccatgaagg tagccatcgg cagtgcctta ccatgtttac ctggagcact 420  
 ccaccacaac accccca 437

<210> 6112  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-A1  
 <400> 6112

cccgggtcga ctgtaaccac ggactgaatt tcgcccacaa ccggaacatg ccggtaatgg 60  
 accgtaatta accgaattct ggaaatgagc ccaagaataa atgggccctt agaaggctga 120

aagttaacac gggctggaaa ggggtcaacgg aataatggac tgttaatggg tataaagcca 180  
 tacactattc attatgggtc agtttcacct tgggccttta gtgggcccac agttacaaag 240  
 gaccttgcac gggccgaaag acgttatggg ccatacatgg gccgaaagtt acaactgatt 300  
 gtaatcatat tggacgggtc agatgacgtt gctgggccta attcggatag gccataacgg 360  
 gccgtgagtt agcgaactgt aaatgggct 389

<210> 6113  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-A6

<400> 6113

ggctctngat tcccgggtcg acgggtatac ataaacggtc gcacgggagg catcataata 60  
 ctttcaggca aaagtataaa cacagccttt ataatttaac aaacattggt cttacaatgg 120  
 gaatacatgt cactagaaca taatattctt cgagcactga gcctctatta aactagcgcc 180  
 ttcaaggact tctttaaaagt agtgctcggc cgatactcgg cccacggctg aactctgggt 240  
 cgcaatagcg gtggcctcca tctctgcca gtatgtcttg acatgggcca gagccatccg 300  
 cgcaccctct atgcacgccg acctcttcat agcgtcgatg cgcggcacag caccaaggaa 360  
 ctgttgcaact aaactaaaat aactattcgg cct 393

<210> 6114  
 <211> 201  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-A9

<400> 6114

attcaagggc caacgggaac ccaaaangna aaactttnnn tctaaaatca gacaaaaaag 60  
 aaaggaaaac aaatcaaagg ataaaaagga aataaaaaaa aaaattttta aaaaaaaaag 120  
 cgggcgcccc aaaagatgta aacttaactt tacctgcaat gaaagttaaa agccttccaa 180  
 aatgttaacc aaaattttatt t 201

<210> 6115  
 <211> 294  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-B11  
  
 <400> 6115  
  
 tgtgatatgt caagtagtgg acagataagc caaccactgg atgtgggtttt cagggatttt 60  
 tgcagtggga tttgtagggg actatgctgc gctgtgtttg ggatttgaaa tagaacgatg 120  
 ggagatgtgc cacgctctta aaatcaaaca cataaggcaa aaaccaatag caaatgtgcc 180  
 agccaaatct gcaacatgca tgcacataaa aaattggccg cccatcagga tctaaactaa 240  
 cttacgcgtg tatgcgaatt catacccctt cgatagaggc acctaaattc attt 294

<210> 6116  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-B5  
  
 <400> 6116  
  
 tcccggtcg actctcgcca ccaactcaac aacggccgct gcatcaacct gatttgacca 60  
 gagttcatcc gcgctgcctcc actattcaac aactttggtg agttctctctc ctctagatct 120  
 tgtaggggtt ttcacgagtt tgtaggtagt tcatcctcgt tcttcgctgt agcttgtaac 180  
 ttttgattca gacttagtac cctcctacgc ggcggtagac atggtaatca tttttgttat 240  
 tagaacatct cctttgcgta agaaaaccaa tctggacaca tgaactgctc acgtactgca 300  
 acttaggtct aaatattttc cattctctga agtgctgtag atccaaaatt gtagcatcaa 360  
 tctgtgaaat ctgtntttcc aacacttagc aattttccca ttctcagatc tgtgaaatta 420  
 atatttgtag gtg 433

<210> 6117  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-B8



<400> 6117

tcccgggtcg acgggggcgg tgaccgggac cctgaactac aacaagcaac atagcgtgga 60  
catgcacctg ctgccccctc aggtacagaa tcctgtatat ggctggtaag acagaaccac 120  
tgctgttagt agtacataga taggcctgta atttgtgaca ctaattcttt ttctctctct 180  
ccccgatgcc aacggcaaag ccttggtcat tattaccaat acgaactaca gactgcttgt 240  
agcactagat aagacttggtg tattcgatat ttcgatccct tgagttttga tggccatttt 300  
cactgggacg ctcaaaaaaa aaaaaaaaaa aaataaaaaa aaaaaaaaaa aaaaacaaaa 360  
aacaaaaaaa aaaaaaaatt caaacia 387

<210> 6118

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-C12

<400> 6118

attcacgggt cgacggcaca acataaacia caagctgcgg cttgtcatga agagcggcaa 60  
gtacacgctc ggctacaaga ccgtcctcag gaccctcagg aactccaagg caaagcttgt 120  
gatccttgct aacaactgcc ctccactccg caagtctgag attgagtact atgctatgtt 180  
ggcgaagatc actgtccacc actaccatgg aaacaatgtt gatttgggaa ctgcgtgtgg 240  
taaatacttc cgagtctgct gcctgagtat catcgacctt ggcgattccg acatcatcaa 300  
cgcaacacca gctggccagt aaacctgtgc atgccatttt cagtgtctcg tctgatgcca 360  
ttttcttgct ggacttgatt tggctctgtg tacatcattt atcagtcaat caagtttgat 420  
ggga 424

<210> 6119

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-C6

<400> 6119

cgccggcagg atacggtcaa gaattcccgg gtcgacggga cgtgtgttga gttcgtggtt 60

cgtggatggc aggtatggtt tcctccttcg acgtcttagt cgcggtgggg tgccagatct 120  
 ggagttcgat ggcgtgttaa ggggtgtgtc cccgtctgat tcgttcaacc gcaatggctt 180  
 cacttttggg gagccacctt gaaagtcctc aaagctgcat atcagtgatg gcgccacgtc 240  
 gagttaaggt gaggaggtga tccgtcattc tttcttcggg tggctgttgt gatgggtgcag 300  
 gaggcaggtg acgggcattg acgtcaagct caaagatggt ctactatctt ttcagttttg 360  
 tcatgtaggt ctttacatga cttgtatttt gttcaatatg atatgaatga aacgcgtatt 420  
 gccaaagaaa agaaacattc cttgataaat attaatt 457

<210> 6120  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-C8  
 <400> 6120

ggtcaaggat tcccgggtcg acgggttgaa gtacgcagat cacagatcaa agtgcccttt 60  
 gtgccgacag gctggggctt ttcctaattg tgtgcacttg gacgagctga acatgctact 120  
 aagctatagt tgtccggagt actgggagaa gagaatgcag atggaacgag ttgagcgtgt 180  
 tcgtctggct aaggagcact gggagtccca gtgcagagca ttcttgggcg tctgatggaa 240  
 catgtagact tcgtacaaaa atgggattcc ccattgctgt tggttagatc ttgatttggc 300  
 atgactgtaa tatatttgta tctatcctgc tgaatgaatt ggtctgtaat tgggaggtca 360  
 cttgtgcgcc tagatgtaaa aaggggtaaa cttgtagtga ttatctgaat gtaaaattgc 420

<210> 6121  
 <211> 176  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-C9  
 <400> 6121

acgttgtccc tatttatgac ccgtcaacca aagatttgtg tattgtatta atgtgtgtat 60  
 tatatcacca caacaatgtg ctgcgtatta gcattaatga gttccgtata tcttgagacg 120

aaaaanannn nnnnnnnnnn aaaaaaaaaa gcggccgctc tanaggatcc aagctt 176

<210> 6122

<211> 276

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D2

<400> 6122

cggggacgtc agagatcaga aaatTTTTtag gctgcagggtg ttggtgagat gagctgttgt 60

gtgttatgaa taacaaacag attaaacaaa cccagaatga cagtggcaag attacttta 120

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaggaaaaa aaaaaaaaaa 180

aaaaaaaaa aaaaagcggc cgctcaaaag gatcaaagct aacgtacgcy tgaatgcaac 240

gtcaaagctc ttcaaaagtg tcacccaaat tcaatt 276

<210> 6123

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D6

<400> 6123

ggtcaaggat tcccgggtcg acgggggatt ctattgcat ttcgttggca aggatgaatg 60

atctaatacg tccagtgac agctgattga tctaggttca ctaacaggac gcgagaggct 120

atggaagtca ggtttgttcg tatggataat gtttgggagc agtgataatc gatgagacgt 180

taatctcaat atgtacgata ataattcctc aagatataag tgtaattcca aaatattatt 240

cgtaaggaac ttaaaaagat gccctttgat ttgagaata gtgtgaaaga atttatgatc 300

tcggacgata attttaatgc attgctagat gaacaattgc gtacagttaa agatttgat 360

aggaacgtct atatacattc gattga 386

<210> 6124

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-F10

<400> 6124

attcacgggt cgacggcggt gcggtatggcg caggccgggt acgccgtgta cgggggtggac 60  
tacgagggcc acggcaagtc ggagggggtc cagggtaca ttccctcctt tgacctctc 120  
gtcagcgaca cggacgcctt cttcaccgcc gtcgtgcctt ccaaggccaa cacggacctc 180  
ccccgcttca tcctcggcga gtccatgggc ggcgccgtgg cgctgctcct ccaccggatg 240  
cgcccggcgt actggaccgg cgccgtcctg gtcgccccca tgtgcaagat cgctgacgag 300  
atgcggccgc atccgggtgt ggtgagcgtc ctcaagctga tgaccaacat catccccacg 360  
tggaagatcg tgccgaccac ggacgtcatc gacgccgcct acaggatg 408

<210> 6125

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-048-Q1-E1-F5

<400> 6125

ggtcaagaat tcccgggtcg acgggaggtc aaacaagcca gagcccatag tgacttgagg 60  
ttgcataggt gagctttcgg gcatgaagta ttcttcgctc tctttgagtc tgggtgaagc 120  
tttccgcaag atgtcatggc gcttctccat gcatcccgcc caaccactgg tttctccagg 180  
gtgcccgtca accgtccttc acccagtact gtgtattgaa ttcttgtctc gagtctcgaa 240  
atcttgagga gtctgaaga tgaagtcctt gcagatgtta tcatgaagtt gtcgtctttg 300  
acataaagcc cttcattctc acaccactcc cgagcaatca taccaaacc cgtctactac 360  
agcgtagcat taanactata tacgtcccg gcttggtaac acggaggtgg gttcctacct 420  
catgcattct actcaactac aagaatcaat atcat 455

<210> 6126

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-F8

<400> 6126

ttcccgggtc gacgggtctg caaaatttag atctgtatgt atcttgcaaa tttctatgtc 60

tcccacctgg actaaatacc ggatggaatt gaagcgtctc ttgatgtgct tggttctctt 120  
 gtgaaatctg gattccttcg ccaaggtaat tgcaccagta ttgtcgcaaa agattttcat 180  
 tggacccgat gcactaggta tgacacctag atcggatatg aactccttca tccagactcc 240  
 ttcatttgct gctttogaag cagctatgta ctccgcttca cacgtagatc ccgccacgac 300  
 gctttgttta gaactgcacc aactgacagc tccaccgttt aatataaaca cgtatccggt 360  
 ttgcgattta gaatcgccg gatcagcgtc aaagcttgcg tcaacataac catttacgat 420  
 gagctctttg tcacctccat aaacgagaaa cata 454

<210> 6127  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-G10  
 <400> 6127

gacatgggcg acaagctgat aatggacagg ttccgtcaat ggcaggccac gcacaaccgg 60  
 tcgtacctga gcgcggagga gaggctgctg cgttccggg tgtaccgca caacgtggag 120  
 tacatcgacg ccaccaaccg gcgcggcgac ctacactag agctcggcga gaatgagttc 180  
 gccgacctca ccaggagga gttcctagcc aggtacgctg cgtcctacga tggggtcggt 240  
 gatgatactg gcatcacgtt gcctgtgggc ggtggcgacg ccgagctgtg gtcgtccggc 300  
 ggcgacaatg atagctcctt ggaggctccg cctcccagct gggactggag atccaagggc 360  
 gccgtcacac cgggtcaagtc ccaaggcgca ggatgcgcta actgctgggc gtt 413

<210> 6128  
 <211> 156  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-G2  
 <400> 6128

ctgaagactg tccaacacac taaatcacac tgtgtatgta tacttagcct ctggcactgt 60  
 cgctctgagg atcaaactta cgttgacgtt cagtcgacga cgcatgacat caagttaggc 120  
 acctaaatgt aactgactgg acgactttat agatgt 156

<210> 6129  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-G5  
  
 <400> 6129

```

ttcccggtc gacctccgcg gacaagggtgc agcgcatgat ggcagagatc gacaccgacg   60
gtgacggctt catcgacttc agcgagttca tctccttctg caacgccaac ccgggggtca  120
tgaaggacgt cgccaaggtc ttctgaatca gttcatttca cctcagccgt ccgttccagg  180
agccgatcca tctacgtacg gtttcgtata tcaatttcat gcaactacct actccggtcc  240
cgatccagcc tcagcttcac ctgaggcccg ccctaaattt gtttgatcaa ttcttttgct  300
actagtagta actagtgatg atcactgttg catcatttat ttattttatt tatatatcat  360
cacaagtttc ctgtgattct tttctttcta tacctttttg tcgatcgctg gctccagctc  420
gatcgaacga tc                                                         432
  
```

<210> 6130  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-G7  
  
 <400> 6130

```

ttcccggtc gacctccgcg gacaagggtgc agcgcatgat ggcggagatc gacaccgatg   60
gtgacggctt catcgacttc agcgagttca tctccttctg caacgccaac ccgggggtca  120
tgaaggacgt cgccaaggtc ttctgaatca gttcatttca cctcagccgt ccgatccagg  180
agccgatcca tctacgtacg gtttcgtata tcaatttcat gcaactacct actccggtcc  240
cgatccagcc tcagcttcac ctgaggcccg ccctaaattt gtttgatcaa ttttttgcta  300
ctagtagtaa ctagtgatga tcaactgttg accatttatt tattttatat cgtcacaact  360
ttccagtgtt tcttttcttt ctctaccttt ttgtcgatcg tcggctccag ctcgatcgaa  420
cga                                                                    423
  
```

<210> 6131  
 <211> 254  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-G9  
  
 <400> 6131  
  
 taccggtcaa aaattcacgg gtcgacggcg agcacaagaa ggacggcgag cacaaggagg 60  
 gcatgatgga gaagatcaag gacaagatca gcggcgacgg ccacggcgac ggcaagaagg 120  
 acggcgacca caaggagaag aaggacaaga agaagaagaa ggacaagaag cacggcgagg 180  
 gccacaagga cgacgacggc cacggcagca gcagcagcga cagcgacagc gactgagcca 240  
 gctccggccg cget 254

<210> 6132  
 <211> 162  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-H11  
  
 <400> 6132  
  
 cggcctcatc caaaaggaag aactgcagct agcattattc aagactccta gcgggcagaa 60  
 tctttttatt gacaggggtt ttgatttggt tgatgaaaag aagaatggag taatagagtt 120  
 tgatgagttt attcatgctc tcagtgtctt ccatccatgt tc 162

<210> 6133  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-H5  
  
 <400> 6133  
  
 ggtcttaciaa ttcccggtc gacgtttgcc ggaaggccac gatgtcgtgg tgttcgaatt 60  
 tcatccccgt ttcttgcatg ggacataagc ataaacccat ggacacatat atgattttac 120  
 aacccatggt ggtgtaccgg agcatgtgca tgtagtttaa ttttgaattg tgcacctgaa 180  
 atggctagaa aaccaattta atgtgtaaaa tgttcaaact aatcctgaat aattccattt 240  
 cttttacgac acacatatat ttgcttggtc actgtagata aagggctag catttcaaac 300

accgtccatt gccgctgtga ccccattatg taattcaact caagatgaaa actcatgtat 360  
atccccacaca tttta 375

<210> 6134  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-049-Q1-E1-C10  
  
<400> 6134

attccccgggt cgacgggttg tcttacttgt gagtggcggt cgaggacgag cgatggtctt 60  
ttcctacaaa tctattcccc taggagcatg catgtagtac tttgttttga tagctaatag 120  
acttttgcaa taagtatgtg agttctttat gattaatgtt gagttcatgg attatacaca 180  
ctctcaccct tccaccattg ctagcctcta tagtaccgcg caactttcgc cggtacatta 240  
caccacccat ataccttcct caaaacaacc accataccta cctattatag catttccata 300  
gccattocga gatataattgc catgcaactt ccaccgttca gtttattatg acatgcttca 360  
tgatgaggac atcaatacca ttgttacacc cacatcccct gctactatac ataatggacc 420  
aat 423

<210> 6135  
<211> 364  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-049-Q1-E1-C8  
  
<400> 6135

tgacgggcag agaaaagtca ggggccggcc gagaaagaaa tagctcccgg ctgctcccat 60  
caagtcggct ggaaaagaag tggccgagtg cccatagtcg ggtgctagaa aaaaagtca 120  
aaggttgact ggccttgaaa aaaaagtac cgggtgagat ggccggctgc ccgagagtcg 180  
gctggaaaaa aagaagaaga aagaaatgtg cgtctgactg tcagatgtgc gtccgaccgc 240  
tggctgcctg gccggctgca aagagcgca ctgttgtgtc ggggtctgcc tgcccagccg 300  
gctgaggaaa aaaaaaaaaa taaaaaaaaa aaaaaagcgg ccgctctaga ggatccaagc 360  
ttac 364



<210> 6136  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-049-Q1-E1-D5  
  
 <400> 6136

ttcccgggtc gacggggtag cctacattgc aatctctcgg gttcgggttag agcccaacgc 60  
 ctcgctcggg ttcagttaga accaacgcct cgcacacacg cacgtacgtg tacaagagaa 120  
 acgcgcacgc ctccggcccc gacctccac cgtaatcagg aactcgccga aattttcgtc 180  
 cccctcgctt ctacgcagg tttttccgtc agggacgac gacagaatgt catgcagctg 240  
 catctccggc ccgcccagga taaaagccc attttctgtc atgatttttt tgttatatca 300  
 gtaggagccc accacatcta tgatgatacc gggttttgtc acaattatca tcatagaact 360  
 gtcatatgta tgacaggaaa aaatttcggt cgccccca 397

<210> 6137  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-049-Q1-E1-D6  
  
 <400> 6137

ggtcaagaat tcccgggtcg acgggggtcat attatcaggg cccaatgcat ggtagtagct 60  
 gaatcatgga tcacaaacac agaactcagt tcctaaggac ggcttcaatg agacaacca 120  
 ccatgtactc ctacatggac tctcacgct acctttacca aatcgtgttc acacacttag 180  
 ctcacacaca gtaggacatg ttcacacacc tctgattcat ccccgatgaa tcagacctga 240  
 ctcaactcta agcagtagca ggcacgaca acaagcatga atgagtaggc acaacagggc 300  
 tcaaacaact cctactcatg ctagtgggtt tcactatatt actgtggcaa tgataggtca 360  
 tgcagaggat aaagggttca gctaccgcag caagtaacag atgaatc 407

<210> 6138  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-D7

<400> 6138

ttcccgggtc gacgggcagt ggaacaaggc cggaggggat acctggaggt cgtcgggatg 60  
taactaggtg agcggcgggcg ggcagaatct gcgagcaggt ggcgtaggcc ctgccgcgcc 120  
agagcttggc cagagagAAC ggcgtgtacc gcagatcggg acatgctgcc tcggcaccgt 180  
caaacggaga aacgatgcac ttcctccctt tcccctggcg gacgggatgc ggccggatca 240  
gtgaccaacg atgagagaga gagaggccac cgcactccct ttcctcggc ggacgggatg 300  
cggccggatc agtgatcaac ggtgagagag agagaggcca ccgcagcctt gtgtgagata 360  
ctctgaagag cgacaaacca ggtaggcagg ctccattgta tata 404

<210> 6139

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-E6

<400> 6139

ttcccgggtc gacgggggaa cgaagagatc atggctaggg gaacttttgc caacattcgt 60  
attgtgaaca agttcttgaa gggagagggt ggcccccaaa ccatccatgt accatcaggg 120  
gagaagcttg ctgtttttga tgctgctatg aaatacaaga acgaagggca tgacactatc 180  
atcctggctg gtgctgagta tggcagtgga agctcaaggg attgggctgc gaagggtcca 240  
atgcttcagg gagtgaaggc tgtgatagcc aagagttttg agaggattca ccgtagcaat 300  
ctcgctggaa tgggcatcgt ccctctatgc ttcaaggctg gggaggatgc cgacactctt 360  
ggcttaacag gccatgagcg ctacaccatc cagcttccga ctg 403

<210> 6140

<211> 327

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-E7

<400> 6140

gagtcgtatt actgtgcatt actatggcaa ggtagtgtgg tgaagcctgc ctttcccagg 60

tggttcgggtg tgcgtaagtg ccagactgag gctgctgcc aagaagggtgtt tttagataacc 120  
 aaagttgcag actactggga catggctgtc aacttcacgg aagatttgct ctgagctaaa 180  
 atttctgttg atgacagtga gagcgatcgc tgcggatcac tatactttgt aatgtcacca 240  
 acatgccatt tttagacatg tggatgaattg aacgcataaa acggctgtcg gatttttgca 300  
 atatgctttc aaaaaatagc tacaaag 327

<210> 6141  
 <211> 235  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-E9

<400> 6141

ttcccgggtc gacgggggaa aatagtcgat gaaactggaa aatttctaag tctgtttat 60  
 atacacagag tattgggtccc ggttcgtggc accaaccggg accaatgccc ccctttagtc 120  
 ccggtgtgtg ccacgaaccg ggaccaatac tctgtgttca taagcaggac ttagaaaatt 180  
 tccagtttca tgcaccattt tccccgcagc acccggaat tcaggtctgg aacct 235

<210> 6142  
 <211> 328  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-F10

<400> 6142

ccgggtcgac gggaaagtta agaaattatg tggaaggaaa cttttgtgac tattcccagg 60  
 ggggcaaatt tccagcaggg agacgtgcgt ccaacaatct ggggaattcca atcaggggat 120  
 aaacctgatg tattagcggc agccatgggt ttacaccatg gtggttatgg aatgacaatc 180  
 ctatgagcag catagtaatt catttgaact ttctcggatt gtttcgaaat ggattgaatc 240  
 ttacatgaag tgcaggacga tccagccaca aatatgttga cgattcaaca tggatcatctg 300  
 cacagaatac acatgctttc acaaattc 328

<210> 6143  
 <211> 297

[illegible]

gggtcgacgg	ggatgatgca	ccaacacata	tccattaacg	atgtgtgggt	caatgaaccc	60
aacatcatgg	atgttcctta	ctctgcatto	cttaatcttc	attctgcatg	tataatagcg	120
gacacaacaa	tatagttagg	acatatatat	agtgcaagca	atatgaacga	gatggggtag	180
aaataaatca	cttacagaac	gtaacaactg	atgatagatt	tgtcgagctc	gcgcaaattg	240
aaaagctgga	acaattcact	cagatgaatt	tgtacatagt	aatgtttgaa	gtgatgc	297

ccggtccaga attcccggt cgacgggata ttaaataaag taacatgatg agattcacat	60
gataatccaa gtactagata ctcaagacgt ccataaccgg ggacacggct aaccatgatt	120
agttttataca ctttgtagag gtttgcgcac ttttccccac aagacttgat ctctccggt	180
gggattttcg cactacatga tgtttgagaa acagatgacc gagacatact ctttcaaaac	240
tgctagcacc ttacgatcgg gtagacagta ccatacctaca tccccacat ctgctagtct	300
accactgtaa gagttcgcac gacttagtca actatgctag agaccatagt agcttgtggc	360
tgcacacgga agtttctagt atgaataatc tcatgatccc tttgagcctg ggtgg	415

gggtcgacgg gaggtggcaa agacaacgat acgatccggc aacctgcat gcagatccag 60  
aaatgcgctg ccaacagggt ttggctaaat ttccaaattt ttgcccgta ctatctatag 120

cgcgatcctg tcggtgtgct ggaatggcac aactcagtgg caccaatatg cacaacagta 180  
gacacttaca acacatctgt gtgaccgagt agttaacttc ggttgaccca atattgaaca 240  
tctacataga cgtaatgata actgaggcac cgacaatcga cgaatcgggc acacacgata 300  
atca 304

<210> 6146  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-049-Q1-E1-F8  
<400> 6146

gggtcgacgg gatatccgaa agagaaggaa gtgcagaata gatgtgttaa tctgaacata 60  
aaagaagagt tagtatgtag ttctagcaca tcaaatacaa caggtttctc aagctctaca 120  
tttagtgctt tacgaaagat tgacaaggac aagatggcca tggcggtggg gtccctgcag 180  
acaagtaatc caactatttc aagtttccag tgcacacagt ccttgagtca ttcattctgaa 240  
ttatcatgcc cttctcgaat atcaacagga tctaccctac cttccaaaac tactaaggaa 300  
ctgtttggca ttgagactga atactgtgtg gccaaaggctt catgtgcca ggtagtcaa 360  
ctggggaaac cttcttcaag tcaatccaat gaagtctcc 399

<210> 6147  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-049-Q1-E1-G2  
<400> 6147

gggtcgacgg ggcaggacag gcaggggatt gagtcacctg tccaatggga aggcgccgcg 60  
tggaagaagcg tccacgtggc ccgccgtggt gggcgtggtg cggttgaggc gtgagaggcg 120  
aggtcgtgac atgcttcgtg cgcggacaac gcaacgcaac gcaaacagtc tcgccgttgc 180  
cacacacgtc actgtgtacg gactgtcaac ggtcaacgtt tgtaagagtg gagatggtgc 240  
gcttttggaa aatcgagtgg tgcggtgttt gttactttct ccattcacag atataagatg 300  
ttctattatt ttactttttt tcgattcaga cttattttaa cacatttttag agcccgttg 360

aaatggatgt aagtttatac acctgtatatt att

393

<210> 6148

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G4

<400> 6148

ttccccgggtc gacgggggat tcgaggtgag acggctaattg gctgggtgtga tttcgcattgg 60

aggactcgac tcgagggggg attacggctg gagacgaatg agggctgagg atttaggggtt 120

tggagggggag gggaatataa agggacaaag ctgagtggtg actggggccgg gcctcgctgc 180

gtaagaaggc cggagtgatt tctcccggtt tctttctttc gttctcttgt tctccttttc 240

ggcctgcaaa gaaacaattc ggtcttctca aaagaaaaag aaaaaaaca ttcggccccc 300

tcaaaaggaa acatacaaat gtctcaaaga caatacaaat aatttggaac cgccttttca 360

gtgcgtcgtc tgagtaggac ttgccggcgc tgccaact 398

<210> 6149

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G5

<400> 6149

gggtcgacgg ggtegcattc agatttgac gctcacgctt aaagccttcg cggtcgcgga 60

atctgtgaca gacatggagt cgtcgttggc aacgggaccg gctgctgtac gggatatgca 120

gtgcgacctc gagtcccaag ccaacgccct cagcaagatc cagaccgaca tctccaataa 180

tcactaggtc cgcattgcagt tcaccatcca ggtcggcgag aatgaactcg tcctcacgga 240

gctggagctg ctgaatgaat gggctaactg gtacaagctg atcgggccag tgttggtcac 300

acaggacaat gcggatgcta atgccaacat caaaaagcgc atccagtaca tcacatctga 360

gctaataaaa acggatcggg cgcttaagga ct 392

<210> 6150

<211> 400

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G7

<400> 6150

```

ccgggtcgac aaggatgcca tagggaacga ctactactcg tcctatgggg atgattccga   60
gtggagggtg aagctttggc tcttcgtcgc ctacgtcgtc tctttcgtct gcctggctgg   120
atcgggtgggt ttgttggtgc aagacgcctt gacagacaag ggcccttctg tgtggactgg   180
tgttgccggc gttctgcaat gtgttttctg gttgataagc gggttgacat actggacgtg   240
ccacaccgag gattaagggg caaaaatctc gcgaagacag acgtctagtc tatacccggtg   300
tgtggtcctg tgtaaaaaaa tatgttcatt ccagggcggg attacttggg gtccgtgtgt   360
gcatagctga ccgcttcctg aaatggaccc ctagcatcag                               400
  
```

<210> 6151  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-H11

<400> 6151

```

ggtctagaat tcccgggtcg acgggaagag gcaatcaatg gtggaaggaa tacagtgcgt   60
ataatccatg gactcaacat tactcataaa gaactcatat acttactgca aaaatctaca   120
agttatcaaa gcaaagtatt acgctcatgc tcctaggggg atagattgct atgaaaatac   180
catcgctcgt ccccgaccgc cattcataag gaagacatct caataattaa atcatgctcc   240
aacttcatca cataacgggt caccatacgt acatgcaacg gaaatcacia cttttatcac   300
aagtacctct caaatcaca actactcatc taccatgact caaatatcac catctttaga   360
cctcaaaaca attatcaacc atcaaacttt tt                               392
  
```

<210> 6152  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-H12

<400> 6152

cgggagattg gatgtgtatg tctatgcgta tgtgtacgtt ccacggtatt taatctagta 60  
 gccaatcttt ttgcatttca aaaaagaaaa aaacaaaaaa gttaaaaaaa aaaaaaaaaa 120  
 aacacaagaa ccaaagggg aaaaaagca aaagaaaaaa aaaattacac aaccaaaaaa 180  
 gaaaaaaaaa aaagaggggc cgcccaaagg gttccaagtt tacgtccgcg tgaaggcaag 240  
 gtcaaaccct tccaaaagg ccccaaatt ccaatccagg ggccgccttt taaaaacgtc 300  
 gggacgggaa aaccccgggg gtaccaatc taaaccctt tgcaacaaac ccccctttcc 360  
 caaccggggg tattacaaa aaggccccac ccgtttcccc ttccaaaag ttg 413

<210> 6153  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-049-Q1-E1-H5  
 <400> 6153

ggtccagaga ttcccggtc gacgggtcgc cctaaagtgg catatgaaat ggacgaagga 60  
 agaaatttag caacactttt cccgcaggat ctcttgcaag aagaaaataa tctccaaatt 120  
 cgacttgtca attttatttc tcatgaaaat agcaagttaa ctcaaagaat ttatcacaca 180  
 aatagtcaat ttgttagaac ttgcttagta gtgaattggg aacaagaaga aaaagaaaag 240  
 gctgggtgctt cccttggtga ggtaagagca aatgatctta ttcgcgattt cctaagaatt 300  
 gagttagtca agtccactat ttcgtataca cgaaaaaggt atgataggac aagtgcagga 360  
 ccgattcccc ataataggtt agatcgcgcc aatatcaatt cttttt 406

<210> 6154  
 <211> 186  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-A12  
 <400> 6154

tcccgggccg acggatcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaagaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagcggc cgcccaaagg 120  
 gttccaagct tactttcccg tgcattgcaac gtcaaaacc ttccaaagtg tcccctaaat 180



tcaatt

186

<210> 6155  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-B12  
 <400> 6155

ggtcaggaat tcccgggccc acgggttatg gactatggaa taaggagtgg caagagccta 60  
 agcttgggga tgcccatgga accccaagat attcaaggat agccaaaagc ctaagcttgg 120  
 ggatgccccg ggaaggcatc ccctctttcg tcttcgttca ttggtaactt tacttggagc 180  
 tatattttta ttogccacat gatatgtgtt ttgcttggag cgtcgtgtat tatattagtc 240  
 tttgattttt agtttaccac aataatcttt gatgtacaca ctttttggga gaagcctact 300  
 tgattagaat ttgctagaat actctatgtg cttcacttat atcttttgag cttgatagtt 360  
 ttgctctagt gcttcactta tatttttgag agcacggtgg tgatttaatt t 411

<210> 6156  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-C10  
 <400> 6156

aattcccggg ccgacgggtt agagaatggg catatctttt gtagaaataa ttaaactctc 60  
 ttgcttcact tatatctatt tagagagttg ccaggaattg gtcattcaca tggttagtca 120  
 taaaatccta cataaaactt gtagatcact gaatatgata tgtttgattc cttgcaatag 180  
 ttttgcgata taaagatggg gatattagag tcatgctagt gggtagttgt ggattgtaga 240  
 aatacttgtg tagaagtttg tgattcccgat agcatgcacg tatggtgaac cgttatgtaa 300  
 cgaagttgga gcatgaggta tttattgatt gtcttcctta tgagtggcgg ccgggggacga 360  
 gcatggtctt tttcctacca atctatcccc ctaggatcat gcgcgtaata ctttgttt 418

<210> 6157  
 <211> 371

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-C12  
  
 <400> 6157  
  
 ggtctagaat tcccgggccg acgggagggt caagggagag aagcgacgga gttagaagtt 60  
 gtaaatatgc attgttgtat cgcgacctga atgaaataaa cgaaataatg ctcttggtca 120  
 atcggcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaca 180  
 aaaaagaaaa aaaaaaaaaa aaacatata ggcgactcca aaggactaat acatagttac 240  
 ccaaataata atacatcaaa cctcgtcaat agaagccacc taaatgcaa taactggccg 300  
 ttattaaaca acatcgtcat ggagaaaaac ctgctttcac caactgtagt agtattgaaa 360  
 aagatcccac t 371

<210> 6158  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-D12  
  
 <400> 6158  
  
 ctcccgggcc gacaaacca cgcagacga agaatgccgc catgagctcg tgatcggacg 60  
 gaggcgtggt gagtgtcagt gtttattgtt actggaatgt gagcgtggca gaagtagaaa 120  
 gccggatcgt gaatggtacg cagagcacia cgggggttccg tccagttttc gttggcgctc 180  
 ggagggatct ggagagacta ggggaggatc cctgggcccg ggcttagtgc tttgatcagt 240  
 gaaagtacgc aacaagaaat catggtttga acaattatgt atcacaacia attaatattg 300  
 aggacaacia atgcaaaagt cttaactca caggactgag cgaccagccg ggaggctctt 360  
 caaggtgagg gattactgca agaccataac taatcccctt g 401

<210> 6159  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-E12  
  
 <400> 6159

ggtcaggaat tccccgggccg acgggatatt catcgagacc ccagagacct ggaggactgc 60  
cattgaagca cttgagaagg atattcaggc agtgcgggaa ctaaaagaga agaatttggt 120  
gctgctgaca taggcatcaa cagccgaagc ggtgggtgctc cattttgtca ggtttctagg 180  
acaagtggct ggaatgtcat actgctgggtt tgctttgtct tcgaaatggt tgggatagta 240  
ccactttgtt gtcgtttag tagctgatatt tcctgctgta gctgtttgta ggctgggttac 300  
ctgcatgtgt tcctcgagtt gtctgataac cggcgacat tgtggttget gctacttgct 360  
gcgttgtgtc tttgtgtggt atcttactgg agttgagatg ttatctgttg cgttgtg 417

<210> 6160  
<211> 318  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-E5  
<400> 6160

tccccgggtcg acgggatgc gaatcgctac gtctccgtcg gctacaagga aatctctgtt 60  
ggacaggagt acaacaactc caaggacaat ttccccaaga aatgcacatt agcgaaggtc 120  
aggagaatgg cgaggttcat catcgacaat aagacgacca ttaggatcgt cgatgtgaca 180  
acgatgatca tgacgacgat tgccaagatc acaatgcagc cgaccactat gataatgatg 240  
atctctctgc cgtctaccat ggagattgac ttcactacga tgattatgac tattaagaat 300  
aagaggaaaa ttacgact 318

<210> 6161  
<211> 405  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-E6  
<400> 6161

tccccgggtcg acgggtccgc caacggccag ccgaatcgac ggagaaggaa tggtttcaac 60  
caggggagac gtaggatggg agttcggccc cggcgaactg atagggagga tagtgtacgg 120  
cgaactgtct atgtctcaga cattgatcaa catgtcactg aacagaaact tgctgaggtt 180  
ttctcaaact gtggtcaagt ggtagattgc cgtatctgtg gtgatccaaa ctcaagtatg 240

cgttttgctt ttatcgagtt cgctgatgat gtcggtgcaa gagcagcttt aacgcttggt 300  
 ggaaccattc ttgggttttta tcctgtcaga gttttgccat ctaagactgc tattttgcct 360  
 gtgaacccca aattttcttc tcgaacggag gatgagaaag aaatg 405

<210> 6162  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-F10  
 <400> 6162

aattcccggg ccgacggggc atggatggac gtgccgcca tgcgccacgc catcgctcgtc 60  
 aacatcggcg accagctgga ggtgatcacc aacgggcggt acaagagcgt gatgcaccgc 120  
 gtgctcaccg gccccgacgg caaccgcatg tccatcgcct ccttctacaa ccccggcgcc 180  
 gacgccatca tattcccggc cccggcgctc gtgggcgccg ccgacgctgc tgagaggaaac 240  
 gagggcgagg agggcaccgc cgtgtacccg aggttcgtgt tcgaggacta catgaacctg 300  
 tacgtgcgct acaagttcga ggccaaggag ccacggttca aggccatgaa ggcagacgcc 360  
 gcgcccacgc ccaccgctg ataacgcgcg gc 392

<210> 6163  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-F12  
 <400> 6163

ggtcaggaat tcccggggcg acgggtagtt cattatgta aacatgaaat tgttgctatt 60  
 gcaccacac atgatagtcc tattatcttt ttgaactctc cctactacac tatatcgag 120  
 aagtttgtgc ttactaaggc ttatattgat gggttgcctt ttaccattac acatgatgat 180  
 tttgatagat ataatatgca cgtgcttgct gctcctactt gcaattatta tgagagagga 240  
 actatatctc cacctctcta tgtttccaat atgataaaat tgcaataaac tgtttatatt 300  
 atgcattggc ctttactatg tgtgcatgaa ttgttctttt atgacatgcc gatgcatagg 360  
 aagagagtta gacttcgttg ttgcatgata tatgttactt tgtgctcact actaaat 417

<210> 6164  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-G10  
  
 <400> 6164

ggtcaggaat tcccggggccg acggaatac aaatgcacct aaaaaataag tattgggaag 60  
 gaaatttgtc ctgcagagag tatatacttg gaaaattgtc aacagacttt cctgtttcgt 120  
 aatatggcac aggactttat tatcttttta atgtgacgaa gaactaatgt agcgtagttt 180  
 agccaggatg tatgactgtt atccaaagag catcaatgaa gagctaaaag gtctattgta 240  
 ttccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
 aaaaacacat attggat 377

<210> 6165  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-G11  
  
 <400> 6165

aattcccggg tcgacgggct gctaagtcgt gcatgtgtgt ctgtgttttt tgtttgttct 60  
 ttgcatgtc cgggcgccaa gcggccgtat cggctcggct gtacgcgtct gctgacgtca 120  
 cgtaggggtg tgggtatatg ctatgcatca tatgcccaa atgcccttag acatgggggg 180  
 taccgaagca aacctcattg ttcaaatatg tccaggttgt tgcgaaccc ttatgttggg 240  
 agaatatgag aactctaggc caaattagcc ttcgactatc tatacctaatt attataagac 300  
 ggatcctttc atagtcttct atctatcgt cttttgtatc cgttgatttt atgttaacaa 360  
 agatattaac ggccgacatt taaaact 387

<210> 6166  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G12

<400> 6166

tcccgggccg acaaagctat aatcaacgtg tgactgattt gggtttattaa ggggtgtccag 60  
ttgtgtgaaa gtatgctaca ttgccccgct tgataagcaa gtaatactca tcctttcatc 120  
tatgcatggc cgtttaactc ttgtcttaaa aaaaaaaat gaaaaaaaaa aataaagggg 180  
aaaaaaaaaa aagaaaaaga aaaaaaaaaa taaaagtaga aaagcggccg ctcaagagga 240  
tacaagctta catacccatg catgcaacgt catacctctt caaaaatgta acctaaattc 300  
aatt 304

<210> 6167

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G6

<400> 6167

cgggccgacg ggtactgtaa tcagaatacc agagatctcc aatgggacga cgacatggat 60  
gtggatgagt cagatacaag gctcttacat gagggaaaaca aactcgatat cacaaaacga 120  
caacacactc ctattggata tgagggtggca tgcaagaatc caagcatagc tcaacgttca 180  
tgggtgcctcg gagaacatcc tgaggctgga gggatatcga attcctcctg ggtctgataa 240  
cagggtgaatg cagtaaacac cataaccatc agtactatga tctggaacaa tatcatgaat 300  
aaactatttt ctggattatg aatgaattct gaaacatggg gctataagtg aattatgttc 360  
catggatttg taactatggg gaatgtcaag ttaacgttcc atc 403

<210> 6168

<211> 334

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G7

<400> 6168

ggctctagaac tcccggttcg acgggtactg tcatcagggt tccagcggtc tacaatgaga 60  
aaatgagatc gatgcagatg attatggtaa atgggtcatc gtcgggaaat caacctgtat 120

atgacaatca ggcaacacgc ccctatttca tatgaggcag cacgtcagga tccaagtcta 180  
 gttcaacgtg catggtacgt cagaaatcat ccagaggctg aagggatttc aagtcactcg 240  
 atggtccttt taacacgtca ttacagtga caccaatata tttctgtatc ataatcagga 300  
 agcataatcat gactcctgca caaactggat tatt 334

<210> 6169  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-H11  
 <400> 6169

ggtcaggaat tcccggggccg acgggggccag aagtgggtggg tctaaaactc ccgaaccccc 60  
 tagaacagga cacgccccca ccgaccggcg gcgaggaaga ggaggaggac atggcgggcg 120  
 cgcggggggca aaaggcgctg gcgacgctgg tgaggctcgt gcgagcgat tccatctcca 180  
 actccaacgc tcccaggctc aggcacctcc cgtctctcat gaggaccttc tcgctctacg 240  
 accatatcaa cctcatcgac accgtccccg aagaccagct ccgcttccaa acttacgatg 300  
 aactggatt catgattaac aatgtaaagt atgaaggag cttgctgata gtagaaaaca 360  
 agataatgac ctggacaccc aaaacatttg cggatataac tgctgaaa 408

<210> 6170  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-H9  
 <400> 6170

ggtcagggac tcccggggccg acgggatgat gaacgctctt gcctatcttg ggcttcgtga 60  
 catcctagct acagagatgg tgtgcaagtc tttgcattcg tggatccgca gcgagttatc 120  
 gtggaagtgt atccacattg aaccggtatt gagcggaag atctctgatc ctgatcgtct 180  
 atttctgaca cagaagattc caggtgattt gcagtgtcta aatataaatg actgcataaa 240  
 tatcaccgac aatggtttga atgctgttct ccaaagcaat ccgacgttaa caaagttgag 300  
 tattgcacgc tgcccgcggt taacttttga tggccttatt gccaatctaa agtcatttaa 360

tatgaaagca gtgtcgggta ttaagagcct cagaattgac aaaaa

405

<210> 6171

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-B10

<400> 6171

ggtagaggtc aggaattccc ggtcgacgg gaaaaagaac tcgaccagca gaaacagagg 60  
acgatgtgct ctccgctgag gacggagctg ttgcggccgc tccgctggc gctgggtgaac 120  
cggggccccc acgaggagct gctgggtggc aaccgggtgg aggtgtccgg gaagggtagg 180  
ccgctgggtgt tctatgacat caccctcgcg ctcaagaacc tccatagacg agtcttcttg 240  
gccgagatcg ggagggcatgt ggtggacgac agggagtggg aggtgtacag ggtgcacctg 300  
ggcgaggacg accacgagct ctctgtctcg gtgcggagca agattgtcga tggcgtcacc 360  
aacatgctca tgggctggga ctgactgacc gactggtcac accatgcac ttccttgaca 420  
tattcagtct tgttgcaaa 439

<210> 6172

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-B12

<400> 6172

ggtagaggtc tagaattccc gggccgacgg gacgcaaatt tttgatgtag aacactctct 60  
ctaattcctt acggtttaag agcagtttcg attttaccga aaagcggaca ctctgttctg 120  
cgcgagacca aaatcgtcgt atgtactgca tcggacagaa gaacgcattg cttcagacaa 180  
acgcattgct tcagacaaaa taccgcactg catcagatgg gcaagtgcac tgcattggtt 240  
ctttttgttt aaacgtattt tttgtcggac gaggaagaa gaacgcactg cttcagacga 300  
aataccgcac ttcattcaca gagacaagtg cactgcatga ttttttttgt gagatgtaaa 360  
ttttcccata cgagtttttg tttttgttgt ctttttttca actttctttt atgaacgaga 420  
agtggacgca aagacaaggg gaaat 445



<210> 6173  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-051-Q1-E1-B8  
  
 <400> 6173

ggtaccggac tgcaattcgc gggtcgacgg gggggtcatt cgtgctcttc actctggagg 60  
 agttttggaa aaggccttct gcactgaaac tcgtccattt aaccaggggtt ccaggcttac 120  
 agctttcgag ttagttcatg acaaaatacc tgcgacgctg atagcagact ctgctgcagc 180  
 tgcacttatg aataatggac aagttcaagc tgtaattgtg ggtgctgac gtatagctgc 240  
 aaatggtgac actgccaaaca agattggcac atacaacctc tcaatttctg caaagcatca 300  
 cggcgtgcag ttttacgtgg ccgcaccagt aacttcgatt gatctctccc ttccgtctgg 360  
 gaagcaaatc gtcatagaag aaagatcttc aaaggaattg ttgaactctg aaggtggtct 420  
 angaaagcag gttgccgcgt caggtataca 450

<210> 6174  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-C10  
  
 <400> 6174

ggtacaggtc tagaattccc gggccgacgg gggaaagcaa caagaggcaa tggatatcgt 60  
 ttcacactta aagttggggc gttccctacc gaaaccatca tgcttggtgt gagaagctct 120  
 ggtttgtgat aagcatcttc ccaaacctgc cccaaatggg acaaaaaatt taccacggca 180  
 tgatgatgcg gctccattat agcatgccaa gttacatgaa tttcagacga gtgtcggatt 240  
 tactagattt tataaactag gcatctcaat gtttgtggca ggggtgttga cattaattcc 300  
 catttcttgc atgggaccta agcatgcacc caaggacaaa agatttgatt tttcaaccaa 360  
 tttatatgca ccggagcatg tgcatgtagt tccaatttgc attatgcaca taaatgcatt 420  
 gaaaactcac ttaatgcata aaa 443

<210> 6175  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-C11

<400> 6175

gtacaggtca agaattcccg ggccgacggg gaggttaaga agctgattgg caggatagtg 60  
 aagtggctga agcccgggtgg gcatattttc atcaggaat cgtgcttcca ccagtctggg 120  
 gattccaaga ggaaagtga cccgacgcac taccgggagc cgagggttcta caccaaggtg 180  
 ttttaaggaat gccactccta tgaccaagag gggaattcct ttgagctttc tctggtaact 240  
 tccaagtgca ttggagctta tgtgaaaagc aagaagaacc agaaccagat atgttggctg 300  
 tgggagaagg tcaagtgcac agaagacaaa ggctttcaga gattcctgga caatgtgcag 360  
 tacaaatcca ctggaatctt gcgttatgag cgcgtgtttg gggaggggta tgttagcacc 420  
 ggtggattcg 430

<210> 6176  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-C12

<400> 6176

ggtacaggtc cagaattccc gggccgactc gtcgtgaaag ccgacgctgc gaatgcgctt 60  
 gtgagagccc ttgcgtgccc gtgagagctc gttcgagga tccgcggcgc accgggacat 120  
 ctctgttcca gctgtggctt cgccgcagga cctctctagt gcttccgcgg ccttgggtctt 180  
 tgctgcctgg ttatatgtcc accctaaact cctcctaccg gtcattggtgg aatgacttga 240  
 caggaaagac cggttttgtg ggtgatgagg agaggaactg tgaagtaatt ttcgagtggg 300  
 tagtttttat agcccagtgc taagtgtgaa cgcatattag tttgataggt gtgaacagat 360  
 ttgcaattac ttattacgtt gtaatctgca atgtgacgag aaacaaggtc aaaattattg 420  
 at 422

<210> 6177

<211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-D11  
  
 <400> 6177  
  
 ggtacaggtc aggaattccc gggccgacgg gcctcgaacg ccgctggaga atcgccttcg 60  
 atcgggatgg ccgccagccg tgaagcggca gcgacaatgt tgtccattgg gttagaatag 120  
 tgacccggtg gtgtggggac gtgcggtgcc acaatgttgt tctgacgagg cggatccacc 180  
 aaacgtggtt gaactggtgc ccctgctcca ggtgcctccg cccggtttac caccggcgga 240  
 ttactggtcc ctgctcctgg ggtgttaaag agatttctag cgtcataaac cggcggcagg 300  
 tgagatcggg gcctcctctt caggacttcg ttcgacgcac tctgatccag cataatccgg 360  
 taagcttggt catccaaagc ggcccgtcc gcgactat 398

<210> 6178  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-D12  
  
 <400> 6178  
  
 attcccgggc cgacggggaa gagtatccat cagcacgatg gcgtggtgac gatcttgatg 60  
 ttcaactgtc gtagggcttc gcctaagcac cactacaata ttatcgagga ttatggtgga 120  
 agggggcacc gcacacgact aagaaaacga tcatgtggat caacttgtgt gtctaggggt 180  
 gccccctgcc tccgtatata aaggagccaa gggggggtgc ggccggccct ggtaggaggc 240  
 gcgcaggagg agtcctactc ctaccgggag taggactcct actcctaccg ggagtaggac 300  
 tcccctccct ttccttggtc aagtaggaga gggggaagga agggagagag gaggggaagg 360  
 aaaggggggc gccccccacc cccggctggc 390

<210> 6179  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-051-Q1-E1-D2

<400> 6179  
 gtaccgcagc tacagctacg acgagtacta caagaagttc tggagcagga acctggacca 60  
 ggaccattgc ctggagctct tcacgggtca gaagtgatcc gtgtgcacaa gcttgccctca 120  
 tctacggctg ggtgcagtgg acatccacga cgtagcatta ctcaaataat aaatgccctc 180  
 aatgtgcggg gttactcgag ttgtttgaac ttgtttttgc ttgagcacia cgtattttatt 240  
 gatgtccatc ttgtattgta atccctatat actagtgggt gtgcgcgcgc gcttgtttta 300  
 attgtgatcc tactcgtaat gaattatggt actacaacat agnnnanatt anagaaaaaa 360  
 aagcggccgc tctagag 377

<210> 6180  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-051-Q1-E1-D7

<400> 6180  
 ggtaccggac cagaattcgc gggccgacga ggcgacgtgc ggggagctgg atgttggtga 60  
 caggggtgctg ctgctggagt ggttcgccga gaactaccag cagtacggct gcaagctgga 120  
 gttcgtcacc aacagggtccc aggaaggggc gcagttctgc cggggcttcg gcggcatcgg 180  
 cgggacccctc cgctaccggc cggacgtcgc cgcctatgac gacgacgacg acgacatgct 240  
 ggatgacgac gtctatgaag acctcgaata gcaatcaact gaagcttcag tgcacacggg 300  
 ccgggaggag cctgtgctgg ccacgaccgc gccgggacga gaccctgaaa catccaaacg 360  
 atcgggtgcan gggaaacaag gaggtggaga gaagaggatc taagcaattg cgcaatccag 420  
 atgttgagcc aggcattgatg atagcgtcga tgct 454

<210> 6181  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-D9  
 <400> 6181

gtacagggtca ggaattcccc ggccgacggg agtagtactg cctgcttgat gtatgggtgtg 60  
taccgctcat cgtaaggcat ggcaggacca gagaccccg c tgataccgag atcttcagag 120  
gttcaagctt ctgcaaaaaa caagtaatga caaatcttag ggcattgtaca tttcaactaa 180  
aggcaaattt gcaaaatatt tagattactc attattacct tacccttcac gcgcattcatg 240  
tatgccccgt gttgcacgtc gtaaacatca tccaaaagcc aaaccatcct tacaatttca 300  
tacaataaac atataaaagt tcatcttcat ctcaaatac ggtatacact aaacatataa 360  
catgtgttca actacaagaa tctcaacatc tccttctcac ataatagaata tgtcatatg 419

<210> 6182  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-E10  
<400> 6182

gggtacaggtc aggaattccc gggccgacgg ggacacgtac gggtttagcac ccggttactc 60  
ctaacagccg atcctgaaag ggtgcttaag gggatcagaa gaccaccacc accgccggcc 120  
acctccaggt ccgtgccggc ggcattcttc gtgtctgcta catcgctgc tgatgccctt 180  
cctcccgacg atcttctcac tgctggagat gctaagggtg agccaggggc taccctgtta 240  
atggatcaag ataatacgc aatgaacatt aaaaatgatg ccattttgtt tgacatagac 300  
gaaccttatg caaagaactt tcccacatgg agagtggaga tcattgtctc atgtaaggaa 360  
tctcccaatg tttttctgcc actaagggtg aaggatgtta atcatgatga taaggcagac 420  
attgggagag atctcaaga 439

<210> 6183  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-E12  
<400> 6183

gggtacaggtc aggaattccc gggccgacgg ggaacgtacg cgtgaaggat ctgaagcgtg 60  
gttttgttgc atccaactcc aaggatgacc ctgccaaagg ggcagccaac ttcacctccc 120

aggtcatcat catgaaccac cctggtcaga ttggcaacgg ctacgccccca gtgctggact 180  
 gccacacctc gcacattgct gtcaagtttg ctgagctggg gaccaagatt gacaggcgat 240  
 ctggtaagga gatagaggcc gcgcccaggt tcctcaagaa tggatgatgct ggcatagtga 300  
 agatgattcc caccaagccc atggttgtgg agacctttgc cacttatcct cctcttggtc 360  
 gttttgctgt ccgtgacatg aggcagactg tggctgttgg tgtcatcaag ggcgtcgaga 420  
 agaaggaccc aacöggggcc 440

<210> 6184  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-E2  
 <400> 6184

gacgggtcta tcaaacataa gcctcattat atcttctca aaacagccac catacctacc 60  
 tatttatggc atttccatag ccattccgag atatattgcc atgcaacttt ccaccgtttt 120  
 gttcattatc attatgacac gcattacttt tgtcatattc ccattgcatg atcatgtact 180  
 tgacatcgta tttgtggcaa agccaccatg cattatTTTT catacatgtc actcttgatt 240  
 cgttgcacca tcccgggtaca ccgccggagg cattcatata gagtcatatc ttgttctagt 300  
 ttcgagttgt aattcataag ttgtaatcaa tagaagtgtg atgatcatca ttattagagc 360  
 attgcctaaa gaaaaaata gaaataacaa gaatggccaa aagaaaaata ggcccaaaaa 420  
 aaga 424

<210> 6185  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-F5  
 <400> 6185

ggtaccggac tagaattccc gggccgacgg gtctcacgag ttcttgttga gtttgggtgtg 60  
 gatgaagctt ttgataaaaa gagaaaccgt gacatgaaag gaattaagga gacacaaagg 120  
 ttcaagcttg gggatgcccc aggcaccccc aaataatatt tcaagaagtt tcaatcatct 180

aagcttgggg atgccccgtt aggcattccca cttttcttct tcaacaacta tcggttagta 240  
tcggttgagc ctaagttttt gtttcttcac atgagttgtg ctatccttgc attgttattt 300  
tattttgctt tgcttgatgt ttgaataaga taccaagatc tgaaattctt taatgagata 360  
gagtctttgc atagttgcat aattatttag ctaccctttg atcttcactt atatctttcg 420  
gagtagtttg taatttgctc tagtacttca c 451

<210> 6186  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-F7  
<400> 6186

ggtaccggac tagaattcgc gggccgacgg gcggtgcaga cgtgcccgga gaagaagatg 60  
atccagcagg tgggtgttcgc cagctacggg aaccgcgtgg ggatctgcgg caactacacg 120  
tttggaact gccacacgcc caaggccaag gagattgtgg agaaggcgtg cgtggggaag 180  
aggagctgcg tgctggccgt gtcgcacgag gtgtacggcg gggacctcaa ctgccccggc 240  
accacggcca cgctggccgt gcaggcaaag tgctccaaga ggcagaggac cgccgagcaa 300  
taagtaacct aagctcacat atgtactgct atgtagatga tctcatcacc ttgacctttt 360  
tgcttttttc atgcttggtg tttgggatac atgttgact caggttggtg attcctgtga 420  
attgttctag gag 433

<210> 6187  
<211> 364  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-F9  
<400> 6187

gtctagaatt cccggggcca catatctaga tatcctcctt tccagcteta ccatctcagc 60  
ttcatccctc attccttcac tcagcagctc ctcccagaag tcgtcagtca gttcggcctc 120  
accgcagcct tgatcccgtc gacttctgtt tcagtctttg aaggctcctg atattgttaa 180  
gcttgtttac ttatgggcac ttgtgtattg gtttattgct gggcattatg ccttgatatt 240

aaagatttcc gccagttaca aaaaaaaaaa aagagacaat acgaatccga ctaaaaagga 300  
aaagaaccat aaagaaaaaa aacaaaaaaa aaaaaaaagc ggccgctcta aaggatccaa 360  
gctt 364

<210> 6188  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-G11  
<400> 6188

attcccgggc cgacggggag cacacgaagg acggcgagca caaggagggc atgatggaga 60  
agatcaagga caagatcagc ggcgacggcc acggcgacgg caagaaggac ggcgaccacc 120  
acaacaccat catcgcatcc cattagcatt ctaccatttt cctcggagag aagtagccag 180  
aaacagcagc gccatggccg gcatcatgca caagatcgag gagaagctcc acatgggtgg 240  
cggcagcgac gagcacaaga aggacgagga gcacaagaag gcgaggagc acaagaagaa 300  
ggacggggag cacaagaagg acggcgagca caaggagggc atgatggaga agatcaagga 360  
caagatcagc ggcgacggcc acggcgacgg caagaaggac gggcgacaca 410

<210> 6189  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-G3  
<400> 6189

accggtcaag cattcccggg tcgacggggg cggataccaa aaccatcgca ctatataaga 60  
tgcaataata aaagtaagaa aataatacaa gtatctatgt aaacatacaa gtaagaatat 120  
ttttcctttc agaaagaaga taagaacaag aggctcacca cgggtggtgcc ggcgatgagc 180  
tcggcgcggg tgatcgacgg cagtgaagac ggggacgggg cgtgacaaac cgctaaacct 240  
agacaaatat tgaggaaaat ggagcttggg ggtcgagctt ggagaggaga aaggttaagt 300  
agtgtggctc gggcattcca tcgaacacct tgtgtgcata ggaggtgagc tagagcacca 360  
ccaagccctc tccccctggg ccagaaaaaa cagagtagtg tgctctgctc ttacgcgagg 420



gggtatatat aggcacctca tt 442

<210> 6190  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-G5  
  
<400> 6190

ggtagcggac tagaattcgc gggccgacgg ggcgaggcgc ctggaaagat ggcctcggtg 60  
tgaatctggg tggcagggcg gtgtggggta cccacacgcg gcgcttctga ggaccagcac 120  
cggatgagga acccgtgtca cgtccatgct tgcgtgttgc gtcatagtca gtctgaccag 180  
tttcagcact gatggctttg ttgacaagtt tcgaaaaaga tgtgcactca tgcagacgga 240  
ggtcgcggcg aagctcagga ctaaggccct tacggaacct tgcttgcttc ttggcgtcag 300  
tagaaacttc ctcagttgca tatcgggcga gattaccaa ctccttgcta taggcatcca 360  
cagaaagtcg gccttgggtg aaactgcaa attcttcacg tttacgggcc atgagaccct 420  
ccggaatgtg atgttcacgg aaagcctcgc tg 452

<210> 6191  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-G9  
  
<400> 6191

ggtagcggac tagaattcgc gggccgacgg ggcgaggcgc ctggaaagat ggcctcggtg 60  
taaccgttcg tactaatgaa tacagcaaga attacaagac atggaaagat aagacaacga 120  
aaacattgtt acaaagcaaa catatagttt caaatcaatt aactattgaa gctaattgtgc 180  
ccaaaagaat ctaggagtat aactacctac ttcaaaggca tatttataca gttcttctac 240  
attttatact atcccgtagc aatgcattggg ttgacgacta gtgagagtaa ctcttcaact 300  
catacattgt ttaattcccc ttcatgctta tcgaaggatg aatggtagta tgattgttat 360  
gatcctgttg attcttttga aatatcgctt tttgatgatg cttgttatgc ttgtggccaa 420  
gatgccaata tgaa 434

<210> 6192  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-H10  
  
 <400> 6192

```

gaattcccgg cgcacgggggt tcggaggctg ataagctcaa gccccctgtg gagccatgat   60
ttttgcagtt gagagatgga tccttcctgt gtatgtatcg ctttgctaaa gcctgggtgg   120
tgctcacaaa cacttggcac ttgtgtgatt cttttgtcca tggatgtact gtgtacaaca   180
agttgatggg aatgtgattt ggtatatgct ttcagttgaa aaaaaaaaaa aaaaaaaaaa   240
aaaaaaaaaa aaaaaaaaaa acaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa   300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaataaaa aaaaaaaaaa   360
aaaagggggc cccccaaaag gttaacctt ttttttc                                397
  
```

<210> 6193  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-H11  
  
 <400> 6193

```

aggtacaggt caggaattcc cgggccgacg ggcagtgtag tcaccttggg tggactgggg   60
ccttcgtcct cacttcatta aaccacgtcg aggaattcgg cgtcactctg ccggccttta   120
ttgctatgct atgtcaccac tccggagtgc cgagctcttc gatctgccac ctcgggaccg   180
gcttggggggc tgggacctca tcccgatgta agctcggact gcgtcatcaa tgccaaacac   240
aagaaccagc taagtcgctc ttatgctcaa agttttaaaa atttaaattt tgttcggttc   300
gaccaagcat tatacttttt tggcaaagag ttgtttgtga aaaacttctt tgtcaaaact   360
ttgtttgtga cacacaaatt caaatacccc gtttacttgg gggcttcctt tatgaagcct   420
tccatcttgc atatgatta                                                    439
  
```

<210> 6194  
 <211> 452  
 <212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-051-Q1-E1-H5

<400> 6194

ggtaccggac tagaattcgc gggtcgacaa gcggcagtaa ctaccagaca gaggaggatg 60  
agactgacac tgcgattgac tttggcaacc tcttgccccg agcgccctcg aagcaccgga 120  
gcaggagcgc tcatccccgt gaaggaggag ggcacgacga cgaagagagg atgatggata 180  
agcttctgag aactacagc aagaagggga tggagaggga ggaggagcac aagacgaggt 240  
cgaagtccag gacccctcg cctcgagcag atcgacctgc tgatggcaac aacagagatg 300  
gagcgcccag tcatccagag agaaccgcat ctctgcctac agaatacagg taccgggtgg 360  
ggaggacgaa ggctcctgcc cctgttcggg ccacctcgct gcagcaggac acgttcaggg 420  
ggaacgtgcn accgaagatg ccggattttg ac 452

<210> 6195

<211> 425

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-052-Q1-E1-A1

<400> 6195

attcacgggt cgacgggggc tgttcgatct tctacagaat atagtcctca tcagagatcc 60  
cgaggactcc acaaagtact atccccgctt taacctggaa gataactcaa gtttttaggga 120  
cttggatgaa catagcaaaa atgtccttag aagattatac catgactatt atttcgttcg 180  
ccaagaaaat ctttggcgac aaaatgcact gaagactcta cctgttctat tgaactgttc 240  
ggatatgttg gcatgcgggg aagatcttgg ccttatccct gcttgtgttc accctgttat 300  
gctanaactc gggttgattg gattgcgtat ccagagaatg cctagtgaac caggcttgga 360  
atttgatatt ccgtccaagt acagctatat gacggtttgt gtcctctcat gtcattgatt 420  
ctcca 425

<210> 6196

<211> 432

<212> DNA

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

<223> Clone ID: LIB104-052-Q1-E1-C10

<400> 6198

ggctctagaat tcccggggccg acatcactaa ggttaatgtg cagaagtttg atgacaagta 60  
ctttgctagg gagaagaaga ctagggcaaa gaagactgag ggcgagctat ttgagtcgga 120  
gaaggaggca accaagaatt tgcccgactt caagaaggat gatcagaagg ccattgatgc 180  
cgagttgatg aaggctatcg atgctgtccc agaccttaaa aattatcttg gtgcccgggt 240  
ctccctcagg gatggtgaca agccgcatga gatgaccttc taagttacct ggtacaagtt 300  
tcaagatctg tggaagtctt ttttgtctag tgtgtgtgct ggttctgtac ttctgatttc 360  
ttttgcccgg ttggtgaatc tttgatttcc actgaagtct gcctgtcaaa tattttgaga 420  
ag 422

<210> 6199

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C12

<400> 6199

ggctctagaat tcccggggccg acgggggggga aagaatgatg gactctatat gatggaagtt 60  
gataggggttc taagacctgg cggatactgg gtgctgtcag gtcctccaat taactggaag 120  
gcgaactaca agggttggca acgtacaaag gaggatcttg aagcagagca gaacaagata 180  
gaggaaatgg ctgagcttct atgttgggag aaagtctcgg agaagggtga gacggcaata 240  
tggaggaaaa gagtaaatac tgagtctgt ccatctaggc tagaagaatc cactgtgcag 300  
atgtgtgaat caacaaatgc agatgatgtc tggtaacaaga agatgaaggc atgtgttaca 360  
cctcttcctg atgtacaaaa tccaagtga gttgccgggg gagcaatc 408

<210> 6200

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C6

<400> 6200

attccccgggt cgaccgtaca aatcaagggtg aaatctgtcc aatcaatttt tgttgatata 60  
 ttttttatta aaaagccaaa ttactccggc ttgtgatatt gtttatgcag agcaattact 120  
 tactgcaaga gcggtggcga ctgacctgcg tccgtactga ctctaataac aacagtcgtc 180  
 tttacctcc gcctccggg tttggtgtat atcaacacat tggagctgca ctgtctgcat 240  
 gagctgttta ttgagtgcga gaaagtcact cctcgggtag cccgggtttt tcttccaaca 300  
 atttgaaggc taattactat atattatcaa ccacctctg cactagatgg ctcaatgagc 360  
 aggtgcacaa gtgcgcgcca ctatagtttg gttaacttca aaata 405

<210> 6201

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C8

<400> 6201

attccccgggt cgacgggggt gctgcaggga tacacgggt cctcaaaaag cttggacggg 60  
 acatccccgg cagcgacaag cacaggacgg ttattgccat ggacgggtggg ctctacgagc 120  
 actacacaat cttcagcgaa accctggaga acaccctgcg cgagatgcta ggggaggaag 180  
 taccctctc cgttgtcatc aagctcgga acgacgggtc aggtatcggg gccgtctcc 240  
 tcgtgcagc tcattctcag tacctcgagg ccgaggtctg aggagccata gcctggatat 300  
 agatatatgt tgggttggtc ctcaggagca gcgatgtctg agtcacgcca gggctctgtc 360  
 tgtgtgtgta gctggagcat ccatggagag ctgtgtctct tagtaattgg tagctctg 418

<210> 6202

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-D5

<400> 6202

aatgccccgg tcgacgggac atgctgacat ttttatttga agagttctat ttagttaatt 60  
 cttttttcag atgattaata gataaattac tcacgtccag caatttatat tagaattttt 120  
 ggggttccag atcttgcgct agctacagat tactacagac tgttctgttt ttgacagatt 180

ctgtttctcg tgtgttgttt gcttattttg atgaatctat ggctagttaa atagtttata 240  
atccatagag aagttggaat acagtaggtt taacaccaat ataaataaag aatgagttca 300  
ttacagtacc ttgaagtggc cttttgggtt ctttcgctaa cggagctcac gagttttcta 360  
ttttgagttt tgtgttgtga agttttcaag ttttgggtga attcttttga tggatcatgg 420  
aacaaggagt ggcaagagcc taagcttggg gatgcc 456

<210> 6203  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-052-Q1-E1-D6  
  
<400> 6203

attcccgggt cgacgggcaa tggagatgt aggtgtgata tgtcaagtag tggacagata 60  
agccaaccac tggatgtggc tttcagggtt ttttgcagtg ggattttagt ggtactatgc 120  
tgcgctgtgt ttgggatttg aaataaaacg atgggagatg tgccacgctc ttaaattgcca 180  
atcttctgct ccaaacttgc taaattactt gttgcatttt gcagcttgtc tacctttaca 240  
gtgactacct tcttttggct gtgcccattt gggaaaacag tttgtccaat tcacatctac 300  
ttcgtgtcct tttagacatt tcaaataagc aacaacatac ggatgtatgt atacatattt 360  
tatagtgtag atccactcat tttgtccctt aagttgtcac ttgttg 406

<210> 6204  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-052-Q1-E1-D8  
  
<400> 6204

cgggtcgac ggggaatatt aaattccaat tgccattaaa gaaaggcatg gagcactttc 60  
caggaaagaa aatcaaatta cttatgaat ctatcgtgag agctccctat gaaccaagtg 120  
ccaaagatgg cactatttag atctatcttc gcttttatgc ctagctaggg gcgttaaacg 180  
atagcgttag ttgggaggca acccaatttt cttatgttc tttgtttttg ttctgtttg 240  
gtaataaatt ttgtttctac tttctgttta gatgtgtttt cttcttttaa ttagtgtttg 300

tgccaagtag aacctatagg ataacctatg atatgagttg atttgattct gcggaaaaac 360  
 agaaactttg cactcacgaa aaaaattcaa taaatcacag gaacgtgctt ttgcattgat 420  
 tccttttgcg gctgatcaat aaaca 445

<210> 6205  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-D9  
 <400> 6205

cgggccgacg ggtcatttca tgcgatga attatcttca taagttgaag aggatctcca 60  
 caagtacaac ctgccatgtg catttgcatt ccaaaagcaa attacttata tgcacatctt 120  
 caggggggagc ccttgccact tatgaagaca ataccctatc ctttacaatt tcacatactt 180  
 cattcccggt gaaaacttca accagtttgt catcaatcac caaaaagggg gagattgtaa 240  
 gtgcatctag tgccaccct agttggttt ggagtattga cgacaaagtt ggttgaggga 300  
 ctaatgcgtt tgtgagaatt gcaggataac tcaggtagtg tccctcattg attcggttta 360  
 cctaccggag atgacccta aaaatgtatg aagacattga cgac 404

<210> 6206  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-E7  
 <400> 6206

attcccgggt cgacgggcta tagaataaag agtggcaaga gcctaagctt ggggatgcc 60  
 aaggcacccc aagatattca agaataagcca aaagcctaag cttggggatg ccccgaaag 120  
 gcateccctc tttcatcttc gttcattggt aactttactt ggagctatat ttttattcac 180  
 cacatgatat gtgttttgcg tggatcgctg tgtattatat tgggtcttgc ttgttagttt 240  
 accacaatca tccttgcgtg aacacacctt ttgggagaag cctatttgcg taggatttga 300  
 tagaatactc tgtgtgcttc acttatacct tttgagcttg atagtttttg ctctagtgc 360  
 tcacttatat cttttagagc atgggtggtg attaatattg aagaaattgc tagtctctca 420



tgcttcactt atattattt

439

<210> 6207

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-E8

<400> 6207

gtataggtcc agaatgcccg ggtcgacatg ggcgacatgc tgatgatgga cagggtccgt 60

caatggcagg ccacgcacaa ccggtcgtag ctgagcgagg aggagaggct gcgtcgcttc 120

cgggtgtacc gcgacaacgt ggagtacatc gacgccacca accggcgagg cgacctcacc 180

tacgagctcg gcgagaatga gttcgccgac ctacccagg aggagttcct agccaggtag 240

gcgtcgctct acgatggggg cggtgatgat actggcatca cgttgcctgt gggcggtggc 300

gacgccgagc tgtggtcgtc cgggcgaggac aatgatagct ccttgagggc tccgcctccc 360

agctgggact ggagatccaa gggcgccgctc acaccggtca agtcccaagg cgcaggatgc 420

gctagctgct gggcggttcgt ga 442

<210> 6208

<211> 446

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-052-Q1-E1-F5

<400> 6208

aattcccggy tcgacggggg ctcattaatg gaatgccaat gaattacaaa cttgtcgtag 60

tectgaaaca ttgagaatct cggtttttaa atcccagtaa atcaaaaact caacacaaaa 120

acatgaaacc tggcatggtt tcatgacatg gcacatatat gccgtggtaa aaaaaatcgt 180

ccagtttgag aagagggcga cacattagta gccacaaaag tcctttttga aacaaaaatc 240

tgacatgtta atatcgcaaa tggttgtatt atattaacca tgatcgaaatt taaccatact 300

tgggtggtgt cgtgcagctg tttgattaga cgggacgagc ccgagaagtc caccgtgcag 360

gtcgcagcgg acgcgtgcga agagtctgcc gtgcaggctc gacangacgc gtgcacacct 420

tccgcctcgc aggctcgagc ggacac 446

<210> 6209  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-052-Q1-E1-F8  
  
 <400> 6209

tcccgggtcg acgagggcta caaagagaag aagcccgatc aacacccaaa gccacaactg 60  
 cagaaggctg atttaagtga actcatgctc ttgctgcta cccctgaaga agagttgcgg 120  
 cggcgagggtg gtaatggta tcatgagtac tctactgatg aagaggatga tgctgttctg 180  
 gctcatgtgc gtgatgaaga cgatgatgat gactttctga gtgattcttc tgtgagcgat 240  
 gaggagaatg ctcaaaccga gggagcggat gttcacaagg ttgctgctat tgtggccagc 300  
 tgaaggcatt tgggtccatc ctatctgtct tcatctaact agtagtatat gtttacttac 360  
 tggcagatgt ctctttgctg gatccgtctg tgttaaatgt acccctgttg tgcntgttt 420  
 cgaacaccga ctatataatt 440

<210> 6210  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-G11  
  
 <400> 6210

tcccgggccc accaaagctc catagtccca ctcagtcttc accgtgccac ccaactcgac 60  
 atcgaggcct cattccgtat tgaccgcctc gacttcgccg ctgcgaagga ggcggatata 120  
 ggctacaact gcagcaccag cgggtggcacg actggacggg gcaagcttgg tcccttcggc 180  
 ctccctgtgc tcgctgatgc caggcgccac ggtggtgata tggagcggac cggcgtctac 240  
 ttctacgtcg cgagaggcct cgacggcggc ctgcgcacac acttctgtca tgacgagaca 300  
 cgctcatctc atgccaacga tattgtcaag agggtcgtag gcaatattgt ccccggtctc 360  
 aatggcgagg agttttcgct gaggggtgct 389

<210> 6211

<211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-G4  
  
 <400> 6211

attcacgggt cgacgacaaa cttgtatttt aggttgcaaa atgatataatt cacttaagtg 60  
 agctgatcaa tcccttctgt acgtgtgacg cctctcttct gaaaaaagag ccttccgtag 120  
 gttggaatg aaacagtgat gagggatcca ctggatcaag cgcattgagc cattgactca 180  
 ttgtggagtc atgagtctcc acgaggagtc caccctttct gtcccttttc caatattttc 240  
 cgtatatctt ccgttcaaca tcaatcttac gttgctgaac attgctcttg tatgtaacaa 300  
 accaaaagta aataataaca atatgacca agaattccag aaagcgccac ttacgcacga 360  
 gacaatgcca gctgtactag ttgtgtgaca cacatgttac atttggggat ggggattggg 420  
 attgagcatc gcaagatcga acc 443

<210> 6212  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-G9  
  
 <400> 6212

cggctctagaa ttcccggggc gacgggcagg caaccgtgta gcaacgacca tggtgaccaa 60  
 atccttcgat tttgtgatgg caggtgtgca tgcctctggc tttgtcgcgt attgtgccat 120  
 atttcgatag tgtatctagt gtctgtgtt cagtaaacca acgctcgtct cgtctttgtt 180  
 gagtctagca tctgtgttgc ttctgttcat aatcgtaagc gaggtccag tgtcgtgtgc 240  
 aactgcaa atgtttgtcc tattttctac tgctgctgct attggtccag atgaactttg 300  
 tctc 304

<210> 6213  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-H7

<400> 6213

attccccgggt cgacggggaa caggtaccag aagccgtcga ggaccaggag cactcataag 60  
aaactacact acgcgtaaac agttacaaga acctacatac atgttcgttc cccacgctga 120  
tggtgctctt gtgtattgct gctgctgccc atcttttttc tcatcccaca gaggcaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaccaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaagcggc cgccctaaag gttccaagct tacttacgct 300  
tgaatgcaac gtcatagctc ttcaaaagtg tcaccaaatt tcaatt 346

<210> 6214

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-H9

<400> 6214

ggtctagggga ttccccgggtc gacggggcatc ctaggcttat gtgtgtggtg aatgaccgtc 60  
aatcgggtcc aatgatattg taaaactgaa tttagagtct gcaattgtta cttggggggtt 120  
tggtagacgg tcgttgtgtt tggggacgat gcagctgcag ccggttctct tggtgtggta 180  
gatttgtggc atggcagggtg ctgctaagct ggagcctgct tgaactgttt tcctgtcact 240  
ttgttggggt aataatgacc atcctgtaaa aaaaaaaga aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaggca aaaaaaaca aaaaaaaaaa 360  
caaaaaaaag cgcccgccct aaaggttcca acctactta cccgtgcatg cgagggtcaaa 420  
acccttccc aaggggcccc ccaaaa 446

<210> 6215

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A8

<400> 6215

aattccccggg tcgacgggca ccatacaaga cgtgttcacg ccgaccaggt acataccgtt 60  
aaggtagttg aggggtgacgg ggatcggatc acaatcaagg gggttgatgc tcgccaccct 120

atgattgtta tgctgctga cacgctgttt ctgaagatca ggcgcatca gcaaccaagg 180  
 aggtggctta aaaagctctg gctgaaggg cttcttgac tggtagacgg gcgagggcat 240  
 ggacgagatg gagttcaccg agggcgagag caacatgaac gacctggtgg ctgagtacca 300  
 gcagtaccag gatgagacgg tcgaggagga agaggactat gaggatgagc aggaggatga 360  
 ggaggccgcc taagcgggct tccccctttc tccccaggga tatgccttat atcgctcgtt 420  
 atgt 424

<210> 6216  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B8

<400> 6216

ggtataggtc aggaattccc gggccgacgg gcagagcaaa atcgaatgaa ccagacgcca 60  
 ttcctaaacg aacgacggcg aggacgagca gaatcgaatc gaatgaacca gacgcgattt 120  
 ctgaacgaac gacagcgagg acgagcagaa tcgaaagaac cagacgcgat ttctgaacga 180  
 acgatggcga ggacgagcag aaccaataa accaagaacc ccacggacga gcgaaaccaa 240  
 atctgattct tetaatccga cggacgaatc gagcggggat gagcgagata gaaccaggcg 300  
 caggaggagg cgaggcagga accgaggacg agccgaggcg agagggcatg gcccgggcga 360  
 atacaggagg agtggcccgg agccccggat gaagagaggg gga 403

<210> 6217  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C12

<400> 6217

gtagccgtct agaattcacg ggtcgacggg cggattgatc cccaagtcgt tgcaccttc 60  
 atgtggatat tcttctagta ttacaaagcc ccccatgtag atagcttcgt cggcttgctg 120  
 aacactcgaa caccaccta attcctacta ttagaggaaa aatgggtactg cagatactga 180  
 ttaatgaacc gatctcttgg ttggaaaggg aaataaagat gttggcctga ccggtctctt 240

ggtcgaaaaa ggacagaaag tggggggtgt tgggtcaaca atccaaccaa gaatgagcac 300  
 gtctagattt cttatgggta cataggaaat ttcgctgacg agaacaaaaa atgcataaat 360  
 ccaaacatgc tttgcatgtc tgccgcactc ggcaacacct ctgcctcacc attt 414

<210> 6218  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-C6  
 <400> 6218

gtataggtct agaattcccg ggccgacggg gacgggacgt gatggaccgc taaacctaga 60  
 caaatattga ggaaaatgga gcttgggggt cgagcttga gaggagaaag cttacctagt 120  
 gtggctcggg catttcatcg aacacctcat gtgtatagga ggtgagctag agcaccacaa 180  
 agccctcccc tcgtcgteca gaaaaaatag agcaatgtgg agtcctctgc tggccggcga 240  
 gcgggtatat ataggcatct cattgggtccc ggttcgtggc tggaaccggg actaaaggac 300  
 accctttggg cccggttcaa gccaccagcc gggaccaatg gtggtggggc aggagcgagg 360  
 cacattgggc cgggttcgag cctcgaaccg ggaacaaagg gtacagatga accggg 416

<210> 6219  
 <211> 185  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-D1  
 <400> 6219

gtaagtaact atcagaggtt gagtgtcgtg aaaacgttct gagaaatgtg ggatttgctt 60  
 tgtaatggta agccacatac aagaagtggc tgaaggaaaa aaccggccgc atctacgagg 120  
 atccaaactt acttacacgg taatgtcacg tcataccact accatagtgt aaccaaaaat 180  
 caatt 185

<210> 6220  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D6

<400> 6220

gtataggtct agaattcccg ggccgacggg tttggcaacc tgctgctgga gctgatcacc 60  
ggccagacag cgctggagtt cggaaaggca tcaaatcaga agggagccat gctggattgg 120  
gtgaagaaga tgcaccatga gaagaaactt gatgtactgg ttgacaaggg tctgcggagc 180  
agctacgacc ggatcgagct cgaggacatg gtgcagggtgg cgctcctttg cacacagtac 240  
ctcccaggcc accgaccgag gatgtcggag gtggttcgca tgctggaagg cgacgggctt 300  
gcggaacggg ggcaagcgtc gcaacgagcc gactcacaca agttcacctg gctgagttc 360  
accttcagcc gctgctactc cgacctgacc gacgactcgt cattgctggg gcatgccgtc 420  
tagctctccg gg 432

<210> 6221

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D8

<400> 6221

aattcccggg ccgacgggtg gcctactttc agaattttat aaacagccgc acataaggta 60  
atattttaaa tcaacaaagt gccatatagc gcaacaaat tcgttttcat actacaaata 120  
cgacatgagt acatttactc aaagattgtg tccttggtag attcgtcagc catgagacga 180  
gcgcccttca taatgccatc ataataattc tcggggtagc ggtgcacctt gccctctggg 240  
ggtccatcct tcaccagctt ctctgcatct agcttggccc aatgcattta tgcacgggca 300  
aaggctcggc gggcaccctc aatacaaatg gatcgcttga taacttcaag ccacgaatag 360  
gcatttacca tccgctttat aaggccggag tagctatcgg gcaagggctc accaggccac 420  
atctggacta tga 433

<210> 6222

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E5

<400> 6222  
aattccccggg cgcacggggca acagagttcc aagcaacagt cggatttgca gatggcttgg 60  
caccaacact gttcaattca gctccccagg ttgcgttggt ctcttcccgg gggcctgatg 120  
taaaagattt tagcttccaa gatgctgatg ttctcaaacc tgatatactc gctcctggca 180  
atctcatatg gtccgcatgg gcacctaattg gaacagatga agcaaactac gctgggggaag 240  
gatttgcaat gatgtctgga actagcatgg ctgcaccaca tattgctggc attgcagcac 300  
taataaaaca gaagtatccc aagtggagcc cgtcagcaat aaagtccgcc ttgatgacta 360  
ctgccaatac gatcgacaaa gggagccatc ctc 393

<210> 6223  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E6

<400> 6223  
aattccccggg cgcacgggggt ctgtacgata ttctacagaa tatagtcctc atcagagatc 60  
ccgaggactc cacaaagtac tatccctgct ttaacctgga agatacttca agtttttaggg 120  
acttggatga acatagcaaa aatgtcctta gaagattaca ccatgactat tatttcgttc 180  
gccaagaaaa tctttggcga caaatgcac tgaagactct acctgttcta ttgaactgtt 240  
cggatatgtt ggcattgcggg gaagatcttg gccttatccc tgcttgtgtt caccctgtta 300  
tgctagaact cgggttgatt ggattgcgta tccagagaat gcctagtga ccaggcttgg 360  
aatttgatat tccgtccaag tacagctata tgacggtttg tgctccctca tgatcatgatt 420  
gctccaca 428

<210> 6224  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E7

<400> 6224  
ggtacaggtc aggaattccc gggccgacgg ggtcaggaag aagtggggcg gtggcgatc 60



gggctccaag tcgcaggcca agaccaaggc cagggaaagg ctcacgcca aggaggctgc 120  
 gcagaggatg aactaagcct agccctataa gtattgtcag agcatatgcc atgtagtttc 180  
 cctttcagtc tgtcctgatt ttgacgagga actcgaaccc ttttagcagc actgtggaat 240  
 cgtattgtgg ttttctgatt cgctgttccg ttctccagac ttctgcaaag atcagatgag 300  
 gtttaccat gtttgattc tatatagttt tatgtccttt gtcgagtctg aagttagttg 360  
 tgtttgacat cttccaaact tggctggctt ttggttaaca tgcaatgacg aacagctc 418

<210> 6225  
 <211> 419  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-E8  
 <400> 6225

gtaaaggcca ggaattcncg ggccgacggg gacacaacgt gggaaaatcc tcattcctct 60  
 gaagtatctg atgtaaggga ggtgaccaca gaagctgaag aaaacagctt ggatattcct 120  
 gttgatagcc agccagttgc tgacgatact ttccaaggct agactggact tttgccattc 180  
 ttgtacacca tgactttttg tactaaagtt tttcatctcg gttcacagcg aacattctta 240  
 taatcttatt cagttttcgc attgaccag agttccgtca cagcttttgt tgctcatctg 300  
 taaacctgag tgaaacaaaa agaagaattg gatcatcaaa aaaaaaaaaa aataaaaaaa 360  
 aaaaaaaact agaaaaaaa taaccgggtc aaagaaaacc tcaaaaagag tttgatgtc 419

<210> 6226  
 <211> 442  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-F5  
 <400> 6226

ggtataggtc cagaattccc ggcccgacaa ccggtatc acactgact ccggcataga 60  
 aaacttgcaa gagaatgga caccatgacg atgtacactg aattgaagat cccagaaag 120  
 tggaatccg cccgcttcca actgatgata aaattcttgc aattgagtat caaattggtg 180



<210> 6229  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G5

<400> 6229

aattcccggg ccgacgggta cacaacctgc acaccggtat aaccttgtaa gtatctgtcc 60  
 tccggtacaa catcaagggtc gattcctctt atttgatcaa ccattcgccg tgtcaaaaat 120  
 gcagaggggg atgcaaggag cacaaggcct gcacatccaa gcaagtggta acatggactt 180  
 gtacatggaa catccaagc gcaatcagag ctgcagttag cctgtacaac gagctagcgt 240  
 aagtcctgc atttcattta attcgtactg gcattcgtgt atgatttgtg tgcagtggct 300  
 gatccacgaa ttaagttac caggggcgaa catttaactt aaaaaatacg aaggcacttg 360  
 cactctggaa atcaacataa cttgagaaat gtgaagctac atgcactttg gaaactagct 420  
 aatga 425

<210> 6230  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G9

<400> 6230

aattcacggg tgcacgggga ccacaaggag aagaaggaca agaagaagaa gaaggacaag 60  
 aagcacggcg agggccacaa ggacgacgac ggccacggca gcagcagcag cgacagcgac 120  
 agcgactgag ccagctccgg ccgcgctccg gcagcagcgt gcagtgtagg cgagatcgat 180  
 gaacgcttgg gagaagtgtg gcatacatat atgttgagg gtttgaggcg tgtggtagca 240  
 tatgtatgta atgcgtgaca tgtctcatgg atcttgtgat gtataataat tagccggctg 300  
 cactgcactg cacggtgctt gtaataataa cgtaaatgaa tcatgttggt attgatgcat 360  
 ctccgttggt 370

<210> 6231  
 <211> 264  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-054-Q1-E1-A2

<400>      6231

```

cgggtccggaa atcacgggtc gaccggatga gatggaataa ccagatcgtg gaccaacaag   60
aacggccgcc cctccgggaa aaaccccccc cttgtggtaa aaacatacgg gaaatccggg  120
aacaaaaaac attaggaacc ccccgaaata aacatgaaaa attgaaaaaa ttgacagata  180
ctgggcaaga tgtcaaacac atctggcttc ctctcaaaaa aaaagataaa aaaaaaaaaa  240
aaaagcggcc gctcaaaagg atcc                                           264

```

<210>      6232

<211>      85

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-054-Q1-E1-B2

<400>      6232

```

tccggaaatt cagggtcgac cgggccagtg gctgaattgt tcaaggattc aagagtcagt   60
ccagcgtgaa tacctcggac gtcga                                           85

```

<210>      6233

<211>      385

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-054-Q1-E1-B4

<400>      6233

```

agggtcgacc cggctcagat cagaagacc ttaggttgt tctgtacat gcattcgccg   60
tgtcagcagc caggcgacgc ggaggggatg aagggcagag agagaacatg tttctgtcta  120
ggtcacactg cttacttagg ggaggtggag ggcccgacag aacgcatgca aatattgaag  180
agggccgaga ctaatttgtt aacgggttatt ttttaaggttt attgtctgtt tatttctact  240
tgatttcaac tttctataca tacatacatg caaatgccc aaagtacact tottacacac  300
gcctcttcgc tggccacctc tcacaacca catacgcagc tcttttccga tagaaaaaaa  360
cgggcggctc tagaggattc aagct                                           385

```

<210> 6234  
 <211> 480  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B5

<400> 6234

cggggtcgacc gggaaggcga agatgtcgtg gcagacttac gtggacgagc acctgatgtg 60  
 cgacatcgag ggccaccacc tcgcctccgc cgccatcctc ggccacgacg gcaccgtctg 120  
 ggcccagagc gccgatttcc cgtcgttcaa gccggcggag atggccaaca tcatgaagga 180  
 cttcgacgag ccgggggaccc tcgccccgac cgggctgcta ctcgcagacg ccaagtacat 240  
 ggtcatccaa ggtgaacctg gcgccgtcat ccgcggcaag aagggcgcgg gaggcacac 300  
 cctgaagaag accggggcagg cgctgggtgt cgcatctac gacgagcccg tgaccccggg 360  
 gcagtgaac ctggtggtgg agaggctggg cgactacctg gtagagcagg gcatgtagac 420  
 gacgacgacg accacgccac gccgccgag caccaacaat actaccggcc aaaagacaca 480

<210> 6235  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C2

<400> 6235

tccggaattc acgggtcgac cgggtgacgc tccaacacat gtccattaac gatgtgtggg 60  
 tcaatgaacc caacatcatg gatgttcctt actctgcatt cctcaatctt cattctgcat 120  
 gtataatagc ggacacaaca atatagttag gacatatata tagtgcaggc aatatgaacg 180  
 agatggggta gaaattaata aatcacttac agaacgtagc aactgatgat agatttatcg 240  
 agctcgcgca gattgaaaag ctggaacaat tcactcagtt caatttgtac atagtaatgt 300  
 ttgaagtgat gtcctgtct aactccgca taaatatatt ctttggcgtt tttatttttt 360  
 atgtaaccct tgtaccattt cagcagacct ttcatttgtg gaggtagatc cttttcctgc 420  
 gcaggctcga cgagaggccc attcttgaca tatgt 455

<210> 6236

<211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C4

<400> 6236

```

gggtcgaccg gcagctgaga gtcactgtca tggcgcgtca cctggtggat cgatctgtca 60
ggcgggcttc tggagtactc gcagctaaga catcctccag aagctatgct aaacttgaag 120
ttttctcttg taagatggaa gtcactgtcg cctggtctct tctcccgtac tggccacatt 180
tacgtgacat gccgtgtcct agcatatgaa tgtggctttg gtttggctct aggtgccgga 240
agtagttatt tatctatgca tgtatgtatg gttcgtaaca agtgtaagt ggggggactg 300
taacttaagc tgggtgggtg gtaataagcc atatccttct atttgtcaga attactatgt 360
aatatagaca gttcagattc gatggttggt ccaataaaaa aaaaaagaaa aaaaaaaaaa 420
aaaaaagcgg ccg 433
  
```

<210> 6237  
 <211> 487  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C9

<400> 6237

```

tccggaaatc cagggtcgac cggatccaga caacagaatg taaaaaaaag ttacctcatt 60
ttgcaatcta ttatgaattg attcaaccag cagggtttttg tcaaatcca gactgataac 120
tttaacaaga gattcttcat caatctacaa aatcatgaga gaaaccaaca ccttatttga 180
ggacttaa at gaagaaatac atgactaaaa aatcctgtca gctcccatct ggacagtcac 240
acagaaaact gcaagattga ctccaatata cataaaattt taagaaacca gtgagcactc 300
ccatgcatag cctcactaaa tggcacaagg cagaagggtg atgtacagac cccagaaaaa 360
aactttaaaa tatatcatta taaatcatga agagaaatga tgggcacatt tttaaccaca 420
tataaactta accaccaagt ttatatgcct taataggaga tatcaacaat ataaaatatt 480
tttatgg 487
  
```

<210> 6238

<211> 485  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-054-Q1-E1-D1  
  
 <400> 6238  
  
 tccggaaatc acgggtcgac gggactcact accactaggg agcatcatgg aattggtgat 60  
 gaaggagggc tgatgatgac gatgatcgaa gattcccctc tccggacccc caaaccggct 120  
 ccacatctgg cctcccgatg aagaacagga ggtggcggtg gcttcgtatc gtgaaacatg 180  
 atcaaacttc ctctttaatt tttctctcca aaagacaggt ttttatagag ttggaattag 240  
 ggtagtgaa gccttggtgg acccactacc caccagggcc tgctagaggg ggatggcgcg 300  
 ccctcatgcc tggcgggcag ccctccggtg ggtcttggtt ccataaatca tcatttatcc 360  
 caacataatt ccccaaaaat ttccttccaa ttccgagAAC ttttatttct gcacaaaaca 420  
 acaccatgat agttctgctg aaaacatcgt cagtccgggt taggttcatt caagtcatgc 480  
 aaact 485

<210> 6239  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-054-Q1-E1-D4  
  
 <400> 6239  
  
 tccggaaatc cagggtcgac gggtagataa gggacacttt ccagaacggt tcagactccg 60  
 aaaaaggaat aggtacttgg aacggtaagt aaaccgactc aaaaacattt ctaagggcaa 120  
 ttttctccg ttttgaaata tttacaaaaa taggaaaata agaagcagtc cgggaaagac 180  
 acgaagctc cacgaagggt ggaagtgcg cctaccccct gggcgcgccc cctgcctcgt 240  
 gggcaactcg tgtgctcccg ggactccggt t 271

<210> 6240  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-D8

<400> 6240

acggtcagga attccgggtc gaccgggtgc gcgttctgag cgcggctgct gcggacggtt 60  
gggctcaagg tcggcgggaa cccgaacgtg tacgccagcc tccttggggg tctgtgggtcc 120  
tccgtggcaa acaggtggca cctggagatg ccaggcatcg tagatggctc gatttcgac 180  
atgtcaagga ccggccttgg gatcggaatg tttaacactg gcctgttcat angtctacag 240  
gacaagctcg tcgtgtgccg gcctggactg a 271

<210> 6241

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E3

<400> 6241

gtcggccgga gcatcttctg ggatggaagc gggtgcggag ggcaaggccc agtaaccctg 60  
aaagaagaaa gacggccctg cccctgatgt ttggaaggaa aggggctgtg gttagctgat 120  
gtaatgttac accgtagaat catcgttcgt gacgataata atgatccgac cagaactcct 180  
ctagtatcat tgttctgttg tcattgtgta gtttactctg tatctgaact ttgttttact 240  
cagcgaaacc gtactgctat gatgaatgtg tcgatgtaaa tcgtggctgt cgtgcctgtc 300  
tgactgatac attgttcatt tagtcgatga atgatagcac ctgtgtcgtc tcagtttcaa 360  
aacaaaaact caaatcaaac aaaaaaacta ttatcaatag ccgaaaccaa ccacaattaa 420  
attatccaag acacaaaaaa aagcggcccc tcaaaaggat ccaacctt 468

<210> 6242

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F1

<400> 6242

tccggaaatc cagggtcgac cggagcaaag gcgccgacga caagaagctg gcgggggatgg 60  
cggcactcac caccgccacc ctctttcttc aagcatccgg ggacgcgagc ccgggctgtc 120



agaagcagcg ctaccagac ctgaccaagg cgcagagga atgctttgaa acctgctaca 180  
aggagctgac caatggcggc caaaaactcg acaatttgtg caccagcaaa gagggctcgg 240  
acgacatcgg catggcccag ctccccgaaa tccgcagctt catcaaggag aacaacgggg 300  
cgcagccca gtggaattgc gataggtgtc gccctgcgaa tgacaagaag acacccgacg 360  
atgtctccaa gaagaacgat gccgaaaagg ccatggctgt cctcgaggtg ctcgtcaaca 420  
aagtgaccaa attatgaaaa acaaacaaaa cctcattgca tact 464

<210> 6243  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-F11

<400> 6243

gtccggaaat ccaaggtcga cgggcgcgtt tcgaaagatg aggctttatt acgagacana 60  
gaggaagaaa atgcgatgct gaagcaacaa ttggaacagt atgagaataa atggtcagaa 120  
tatgagacca agatgaaagt tatggaagag gcatggaaga aacagctctc ttctctgcag 180  
ttgagtcttg tggttgctaa gaagagccta gctgctgatg acatgggtcac ccgagcagct 240  
cggactgata ccaactccaac gcatgctcaa tacgactctg aagatacaat gtccacaggg 300  
accataccc cagaagggac agagttgaaa taccaaaacc acaaccctga acctagactg 360  
gcgacaggaa actcagatag gcggatagat gctgtgaatc acctagcaaa ggagtttgag 420  
gacaggcgac aggtattcga cgacg 445

<210> 6244  
<211> 358  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F2

<400> 6244

gtccggatat cacgggtcga ccggactcca gacactgagc tactatacaa aggctggcag 60  
gaaaacactt gctgacaatt atgactatgt catgcatgga aagctttaca agatttcaga 120  
ggacaattcc agcaaggata aaggacctac taaagtggag atctatgcat cttttggcgg 180

cctcctgatg ttgctcaaag gtgatccttc aagtgtgtgt aacctcgagc tggatcaaaa 240  
gctgttcctc ctcatccgaa aggtgtaaac gtgtcatcta cctgataacc agcgcttgta 300  
gttcactcaa ggctattaca agcctgtgat cgtttggagg ctaatcgtcc tacaccct 358

<210> 6245  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F3

<400> 6245

ggggagagag agattggtaa ctttgtgcat gagagagaga cagaggggtgg gggaggagtc 60  
agtcagccgt cgtcacatca ccctgcttcc aaatgacccc gcattctcta gcgcagtgtg 120  
gttgccgtca tcgatctgct cgatgccctc tttgacgatt gaggtgttgt gcatgttggg 180  
gtgcaaagaa gcacaagcga gagtggtcac cgtataacct tggatgggga tgaattgtgt 240  
gctcgggtgt gtgtgtgtgt gtgtgtgttg tgctccatgt gtgtgtgtgt gtgtgtgtgc 300  
atgtgtgtgt gtgtgtgtca gatattgaga gaaaaaacct aaggagagaa atgggtattc 360  
acgaagagat tgtgcgggcc ttgaggtggg cagggcccgg gtgacggtgt caaaatgtgc 420  
gcgttgatgc atgtg 435

<210> 6246  
<211> 420  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-055-Q1-E1-A1

<400> 6246

gtacggtcca gaattcncgg gtcgacatcc atacagaact gaaggacggg aaataggatg 60  
ggacagagag agaggagaga gagggaggga gaggggtaga gtgctggatg ggtgatggag 120  
ttgcttctcg aagagtgggg atgtgtttct gtgtgtgcct gtgcgtgata gagctgtcgg 180  
gacgcattcca tggatgatga aggggaacca tgtgtttggt aagcaaacct aactagatcg 240  
gtagatcaat tgttgtttgt cggaggaagg gagagacata actaatgagg tagatcgatc 300

gacgcgtggg gaaaaacgag ttataaggac ctagctagct atatgtatag cgggagatcg 360  
gtcgggtgtac gtccatttgt tagaggcaaa taaggcccg cgagacggat agacagagag 420

<210> 6247  
<211> 423  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-A2

<400> 6247

cgggccagaa atccccgggc gacttccatc aaaacgatat tcatcatctc atcgaaagac 60  
gggacacctt tgccctctatc aagtggatc agatttccag gttgctcggg gagattttac 120  
agtttttcgt agtttagatc gagtctgttc ttcataccta cagtccacga aaaagccaca 180  
aaaaaaaaatt agggtttagt catcatatcc gaaccaatct gagcctttgc ataatctttt 240  
tagggttttt gctttgttga atttgcgggt gcatcgctgt gtcaagttgc tggctcttaga 300  
gtctagtctt ttagagtttc gaggctctgt cataagttgt cacgccgccg ccgcaccatc 360  
atcatcgctt tgccatctac caccattgct tatccgcaa cgctttgaat ccgtatccat 420  
ata 423

<210> 6248  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-A6

<400> 6248

gtaccgatct acaattcccc ggccgacggg atggacaagg gggcgtggag cgaggagagc 60  
aggaaaggct acaatctcgt ggatgcagtc acgaggtgca cgggtgcagg gtatccgaga 120  
gggtggacgg cgatcttcat cgcgctggac aacgtgggga tgtggaacgt gaggtcggag 180  
gattgggtgc gcaggtacct gggccagcag ttctacctcc ggggtgtacac gccggcgcac 240  
tccgtccgag acgagctcac cgtgccgacc aacgcgatcc tctgcggccg cgctgccaac 300  
aagagccgcc tgccattctc tcagtagtga gcaactgag gccgctggca gggaatgatc 360  
caattgtatc ggagtattag tagtgggtata tgggtgtgcaa gtcgaactgt cgaagactta 420

gtttggctgg tta

433

<210> 6249

<211> 483

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-055-Q1-E1-B10

<400> 6249

ccggtcaaga atnccgggtc gaccggcacc ttgacaacta tcttctggct gctcgccatg 60

ctctgcaccg gcaacttcgg tgcgtacctg ctcgctgcac ggtggtatac ctacaagaag 120

accgctgact aaacctggcg atcactgtgc cgtatgtgct agggctacttc tttgatgcaa 180

taaactgtga attgggaaag ctacctgtgt tgcggcaaat cttgaaggaa ctctgctcat 240

agaagattca gaatcggtga tctagaaaaa gttcgtcagc agtctggaaa attcaggttt 300

cagcaccgac tcctgttggg cgcgcgagg agtcgggtag gcgcggcagt aatgcctaaa 360

agcaagggaa actggccggc caactctggc gcgagcatgc tttttactct ttattaatct 420

tttaatcggg ttttctctga ttttttttgc gaatcttgat gtttttaaacc ctttttaaaa 480

atc 483

<210> 6250

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B6

<400> 6250

gtaccgatct agaattgccg ggccgacggg tgaagaaatg ccaagacatc atcttgttgc 60

aaatacccca cccactctc tgcgagattc gctaagttcg ttgtgcatta catactggaa 120

tgcgttagtt acctagttac gatcgacta gaacaacatt tgtgtactga gtattcggac 180

aaagtttgtt tttaaagtgg gcaacttttt tgttaaaaaa aaaaaaaaaa aaaaaaaaaa 240

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaca 300

aaaaaaaaaa aaaaaaaaaa aaaaataaaa aaaacaacaa aaaaaaaaac caaaaaaacac 360

a 361

<210> 6251  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B8

<400> 6251

gtaccgatct agaattcccg ggccgacggg gatgcgaagg ttccggcaga gaaagccgct 60  
 gccgctgctc ctccagctgt gacctacgcg gcgaagggtg cccaaacagc agcggccgag 120  
 aagaagcctg tggccaccga gaaaaagcct gtcgtcgcca acggtgctgt caagaccggt 180  
 gtagctgctt gatcgcatc ctgatcctcc cagctagcca tgaggaacaa acggacgggtg 240  
 ctggcgaacc aggcgagaca tgcaggggtcc caagtaccga tcaccaaagg tggctggaaa 300  
 gcgggttgga tagttaggtt tattccctag ctctctttt cccctgtcat cgtcgttaata 360  
 accgtaattc aatttggcta gctctaaaga ctctctata gtggtatcat cggaatcacc 420  
 agaaaaagag aaaagagaac ctgtggcaag acaaaggt 458

<210> 6252  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B9

<400> 6252

cgggtcgacc agattgtcaa tctgaggacc gtatttgtac acaatatgtt cccctttgag 60  
 aggttcatgg gagtcctaag gaaatatgtc tgtaaccgtg ctagcccaga aggaagcatc 120  
 tgcatgggac accaaacaga ggatgtcatt gggttttgtg ttgacttcat tcttggcctt 180  
 aagaagatag gtctccctaa atcgcggtat gatgggagac tgattggaaa aggcacgcta 240  
 ggagcggact caataatatg caggacggg cattcttgggt ctcaagcaca ctacacagtt 300  
 ctacagaact ctaccttggg gaccccgat gtcgatgaac acaagaatag tctgcactcc 360  
 aaacacccgg agcagtgtga cgactggatt acatgtgaac acatcaggac tttcagcagt 420  
 tggttggaaa caggtctcag aggtgacaac actgtttgtg atgagctgta 470

<210> 6253  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C7  
 <400> 6253  
 gtaccagtct agaattcccg ggccgacaag tggctgaggt gatccgtatg atgattgtga 60  
 tatcaagatt aggaggggtga atgtagagc taatcttgat atttgtatta gcatgtttga 120  
 gttttgcatg tagtctagtc tagtgtggtg ttcgtccgac gaaggcttca ggtgagcgcg 180  
 ccaaggaggt gagatgccag gatgccgtgt gaggcgggtga gcacggcgag atgccgatgg 240  
 tgctgcgtga gaagcggcaa gacatatcag aggtgggagc cgtgatggac tgcataaat 300  
 tgggtcgggt gaaccggccg gtcgttctgt ttgttgact agctgttcat gcgtgagttc 360  
 gtttagtcct agccgagagt atcgttgcta gtagttgatg catgcatg 408

<210> 6254  
 <211> 490  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C9  
 <400> 6254  
 accggtcagg cattaccggg tcgaccggg gccaaagcaag cacaaaggcc aaagcaaagc 60  
 ggtggataag taccactctc tcctgagccc taatgcaatt tcatacgggc gggcatataa 120  
 aatctagggg cctgtttgtt cttggcctcc ccatacctct cgttccatgg ggatctgtgg 180  
 ttggattgga taaaagatgt cgtgtgtgtg tgtgtcttca ggtcccttgg gttcccaccc 240  
 caccctcttt ttactggggc gaggccacgc ccggtgctgt tgaaaactca cgcggcggca 300  
 catacccaca gataaagatg caagaattta atcgtggagt tgccattgga caagatggcc 360  
 agcctcctcc taccgtccag tgctctcca tctactctc tttcaacctg tcatgcacta 420  
 gtagcactgc tgcttagacg tagtagctgg atgctgcca gagtggctga aagaaggctg 480  
 ctttcggcac 490

<210> 6255  
 <211> 418

<212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-055-Q1-E1-D1  
  
 <400> 6255  
  
 cgggtcgacc gggcttcact tataatctttt gagcttgata gtttttgctc tagtgcttca 60  
 cttatatctt ttagagcacg gtggtgtctt aattttgaag aaatttctag tctctcatgc 120  
 ttcacttata ttattttgag agtcttttag aacagcatgg tattttctat tttcataaag 180  
 ttggtcctag aatgatgagc atccaagttg ggtataataa aaactatcat aggaagtga 240  
 ttggatgcta tgatcaactt gatacttgat aattgttttg agatatggag gtagtgatat 300  
 taaagtcatg ctagttgggt gattatgaat tcaaagaatg cttgtgttga agttagcaag 360  
 tcncttagca tgcacgtatg gttaaagttg tgtaacaaat ttgaagcatg aagtgtac 418

<210> 6256  
 <211> 484  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-055-Q1-E1-D11  
  
 <400> 6256  
  
 cggtcaggaa tgtccgggtc gaccggggcgc tctgctacag ctgccagtcg tgcaaggccg 60  
 gcgtggtggc caccctcaag cgcaattgga agcgctccgc catcatcaac atcgtcttcc 120  
 tcgtcttcat catcattgtc tactccgctg gctgctgcgc cttcaggaac aaccgccgcg 180  
 accaccgcaa cggcggcggg tacaagcagc agggcgcgta cgctgatcg tttggctcgg 240  
 ttattttattg cttggattgg atggatgcga tcgtcgtgtc attttcattc atcgtcgtgc 300  
 ttctcttagg atggcctgat ctagctttgt acaggcgaga ttattctgtg ctctgatcat 360  
 ctactagtta ggttctatac tccgtgggtca tgangagggt tgtgtatata tcttttctgt 420  
 tctttgatat gtatggcaga ccattatata tgtaacggat tattctggag ttatttattt 480  
 cata 484

<210> 6257  
 <211> 440

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-D5  
 <400> 6257

gtaccgagtc tacaattccc gggtcgacgg gccatagaaa acttgggaata cagtaggtct 60  
 aacaccaata taaataaaga atgagtttat tacagtacct tatgtggtgg tttttatttc 120  
 tttcactaac ggagcttatg agatttcctg ttgagttttg tgttgtgaag ttttcaagtt 180  
 ttgggtaaag atttgatgga ctatggaaca aggagtggca aaagcctaag cttgggggatg 240  
 cccatggcac cccaagatat tcaataatag ccaaaagcct aagcttggcg atgcccgggg 300  
 aaggcatccc ctctttcgtc tttgttcatt ggtaacttta cttggagcta tatttttatt 360  
 cgccacatga tatgtgtttt gcttggagcg tcttgtatga tattagtctt tgcttttttag 420  
 tttaccacaa tcatccttgc 440

<210> 6258  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-D8  
 <400> 6258

ggtaccgagt ctagaattcc cgggccgacg gggacgaatc tgaaaagcca ggcaattcaa 60  
 ggctcccaa aacaatgttg ggcgccatgc atgcaatgtg gaacaaggaa ggcattcccag 120  
 ggttcttcaa agggttacat gctcagatac taaagacagt tctgagctcc gcattactgc 180  
 tgatgataaa agagaagatt tcaaagttca cttggatctc gctgcttgcc ctgcggcgat 240  
 atctctttgt ttctcggaag agaatcaaga gtgcatagtt gtatcatgca tatgtcagac 300  
 ctgagaaaac cagtctaate gtccactggg atttcaagat cgtattatac caaataacag 360  
 aagtacagaa gcagaacagc acgatcatct tgagagcgcc atggaatgtt ctgaataaat 420  
 ttgtttgttt ttccatgtag tagctctgaa catctg 456

<210> 6259  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-055-Q1-E1-E2

<400> 6259

ggtcaagaaa tccccgggtcg acggggagaa ggacattgga gatggaacgg tcagctatgg 60  
aatggatgat gctgatgaca tatacatgcg gtcattggact ggcaccatta ttggccctca 120  
caatactgtc catgaggggtc gcattctacca gctgaagctg ttctgtgaca aggactaccc 180  
tgagaaggca ccatctgtta gattccattc aagaatcaac atggcttgtg ttaatcacga 240  
gactggggcg gttgacccaa agaagttcag ttgctagca aactggcagc gggagtacac 300  
tatggaacat gtcttgaccc agctgaagaa agatatggcg gcgacgcaga accgcaagct 360  
agtgcagcct ccagaaggga cattcttcta gcggggtgtt tgctggccca tctcca 416

<210> 6260

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-E5

<400> 6260

ggtaccgagt ccggaattcc cgggtcgacg ggtcgagtag cagctttgag ccggttcata 60  
agccggtttg gtgagaaggc tatgccgttg tatcaaatga tgaaaagac ggatgacttt 120  
gtctggagtg acgctgccaa ctctctcttt gaagatttga aaagacagct tgctgagcca 180  
cagtttcttg ctgccccgtg tgagaaggag ccgctattgt tatatgtggc tgctaactca 240  
cgggccatca gtgtggccat tggttgaggag tgcaaggagg ctggcaagga acatccggtt 300  
caacgaccgg ttactacgt caatgaggtg ctatttgaat ccaagcaaag atatccacat 360  
tggcagaagc ttgtttatgg ggtgttcatt gcaagccgga agcttaagca ttacttccag 420  
ggtcatcct 429

<210> 6261

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-E6

<400> 6261

ggtaccgata tagaattccc gggctgacgg gatgtataac attccaaatt gaaaatttgg 60  
 gatgttacag tacatggaat atgctggcaa gatcacacta tagagcaatg atgaataata 120  
 gctatcacta catgcatatt tggccggtgg aggctctaag tttaatgttt gcataaagcc 180  
 gattttccct acaacaaagg aataactttt atttgctacc aagttgaatt acccatattg 240  
 agaaggtttc tccaactcaa tcccaaatta ccaagtataa aataactaacc caacaatttc 300  
 attagacaga atgatgagat taacatataa tccaaatacc agatactcaa gatgtccata 360  
 actggggaca cggctaacca tgattagttt gtacactcta cagaggttgc gcactttttc 420  
 cccacaagac tcga 434

<210> 6262  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-E7  
 <400> 6262

ggtaccgata tacaattccc gggccgacgg gaagcagcaa ccaacttacc aaaagttgat 60  
 tataaagcat gctaattctga aaaaacttag tctatggggc tgttctgcaa tagatgccct 120  
 atatgtaaat tgtccagagc tgagtgatct gaacctcaac tcttgcataa atctgaatcc 180  
 agaacggttg cttcttcagt gtccaagctt gaaagatgtt catgtcactg gatgccgtga 240  
 catgttgatc ggagcaatca gaaaccaggt tctgaatgag tttgcagcag gagagcctcg 300  
 catgccttgc aagcgccttg ctgatggctc gaagcgggtg caagtccttc agttcatgcc 360  
 agaacagcag tttgaggacg agaaatggtg cggcgagtgc cggcgaagcc agtgcgccg 419

<210> 6263  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-F10  
 <400> 6263

cgggtcgacc gggctctgttc aatcatctac agaatttagt cctcatcaga gatcctgagg 60  
 actccacaaa gtactatccc cgttttaacc tggaggatac ttcaagtttt agggacttag 120

atgaacatag cacaaatgtc cttagaagat tataccatga ctattatttc gttcgccaag 180  
 aaaatctttg gcgacaaaat gcactgaaga ctctacctgt tctattggac tggtcggata 240  
 tgttggcatg cggggaagat cttggcctta tccctgcttg tggtcaccct gttatgctag 300  
 aactcgcggt gattggattg cgtatccaga gaatgcctag tgaaccaggc ttggaatttg 360  
 atattccgtc caagtacagc tatatgacgg tttgtgctcc ctcatgtcat gattgctcga 420  
 cattacgtgc ttggtgggaa ggagatgaag ggacaagatg tcgttt 466

<210> 6264  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-055-Q1-E1-F3  
 <400> 6264

ggtccagnaa tcccgggtcg acactcttcc aaaccactt tcaataatat tgcaaact 60  
 attatcaatc tcatatttat catgggcctt aaataaattt caagttcata agaaaaatca 120  
 cccaatcac gatcatcaca acaaatagta gtcatagcaa aactagcatc cccaagcttg 180  
 aggttttgca tatcattagc acaattgtca ttaagagaat ttatgatagc atcatttcaa 240  
 tcatgctttt catcgaagga actatcaagt acgggtgcaa tagcaacaat ctcatgttta 300  
 acataaggaa ctatagcaaa ttcattttca taaatattgg catcatggcc acaagaatag 360  
 caagaatcat gatcatcaag ggatatttca atcatatctt cggaatcaca attatc 416

<210> 6265  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-F5  
 <400> 6265

ggtaccgatc tagaattccc gggtcgacgg gcaaggatac gccagactga cagaaacgta 60  
 ccttacaaca cgctgatatg caaattgcgg ctgcgcgggc acataccggt gcaccaaadc 120  
 gagtctaagg aatctgtgca acagggtgtg caacacgtga tgccggcaat gcagctgctt 180

gccccccggc accgcccggca acgaggacat ctgcccctgc tacgctcaca tgaccacgca 240  
cgaaggccgc tatagttgcc cacgatacaa tcgcatctc cacggtcaat cacgactact 300  
acataatcga tcgtcatggc ctctcaatta atatcacatc cacgatgagc gacagctaga 360  
ctagcatgaa gcacgatcga tatgatacat gtactactca agctagtgtc gcaaactatg 420  
taccttgtgc ccaccata 439

<210> 6266  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-055-Q1-E1-F8  
<400> 6266

aggtaccagt ctagaattgc cgggtcgacg gggagcacia ggagaagaag gacaagaaga 60  
agaagaagga caagaagcac ggcgagggcc acaaggacga cgacggccac ggcagcagca 120  
gcagcgacag cgacagcgac tgagccagct ccggcccgct gcagtgcagg ggagatgaac 180  
gcgtgggtta atttggagcg tgtggttagca tatgtatgta atgcttgaca tgtctcatgg 240  
atcttgtaat gtaataaccg gctgcactgc atgggtgcttg taataataac gttaaggaat 300  
ttccattggt aacaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaacaaaaa acaaaaggaa 360  
aaaaaacaaa aaacaacaaa aaaaaaaagc ggccgccta aaggatccaa gctt 414

<210> 6267  
<211> 273  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-055-Q1-E1-G1  
<400> 6267

cgggtcgacc gggaaagaga ggaaaaaatg tactgtagac aacagtgggg tggtaattc 60  
cttgtaagtt gttaaaaatg aaagaaacaa caatggggtg gttgatttct aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaccggccgc caaaaggat caaagcttac gtaccgtgc atgcaacgtc 240  
aaaactcttc aaaagtgtca caaaattca att 273

<210> 6268  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-G5  
  
 <400> 6268  
  
 aggtaccgat ctagaattcc cgggccgacg gggcggataa ctccgcatgg gatatcgata 60  
 gcagcccaga aaggcgcccc cgagataagc ccctggccaa atcatgagta ttcaaagact 120  
 cgacgcattc atatatcagc ctctttactt cataatttta acatgttgaa tcatgtactt 180  
 gcacttcggc tcgttccgcc ctcgagcgat cctcatcttc ggggaactcg ctggacccaa 240  
 aggtgatgga caatgggtcc cttccgacgg ctcctctccc cagggccatg gatgacacca 300  
 aggtgttgtc ccaaaggatc ccaggctagg gagagacgca tgaggccttc agggcggtga 360  
 cagaaggcga gacctcgacc gcctgacaca tgggggagaa gatcccatgg agaccggcga 420  
 t 421

<210> 6269  
 <211> 180  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-G6  
  
 <400> 6269  
  
 gacgggggtac taaaaaaaaa aaaacaaaaa aaaaaaaaaa ataaaaaaaaa acaaaaaaaaaa 60  
 aaaaaaatga aaaaaaaaaa aaaacaaaaa aaaaaaaaac cggacgccct aaaggatcca 120  
 accttactta cccttgcatt caacgtcaaa ccccttctaa actgtcacca aaattcaatt 180

<210> 6270  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-G7  
  
 <400> 6270  
  
 ggtaccgatc aagaattccc gggtcgacgg gctattttta aaattagaaa ggaagggcaa 60

gattgaagat gcaaacaaaa atatagttgg acacttccat tctcagctca ctcaagacat 120  
gaatatcttg catagaaaca tctcaacttc ggtctctcaa caggagagcc aactgaaagt 180  
acttgaagag gagatgcaat cttttatcac ctcgaagggc aagggttggtg gaggacttca 240  
aaatcaagta agagaaatga aagagagctt cagttcaagg attgcagaat tgcattggctt 300  
tgctaattgag ctcaacctca aatcccaatt aagctctgag aagctgaatg cccaagttag 360  
cgcacacaca tctgatctgg aggattgttt gaagggcctc ttagctgatg ctgaccaatt 420  
actcattggg ctacaaaatg ggctccctca gcaag 455

<210> 6271  
<211> 165  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-G9

<400> 6271

accggtcatg tattccgggt cgacgcgggg agcttttaaag atctagaggg gggaaaaaaaa 60  
aaaagcggcc gctcaaaagg aatccggccg cacgtacacg atccatgcta acttacacgt 120  
ctacgagact tcaaaccact tccatatcgt caccatctt caaat 165

<210> 6272  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-055-Q1-E1-H1

<400> 6272

ccggtccaga aatcccgggt cgacgggaag aagcccaagg ccgagaagcg gctgccggcg 60  
gggaagtcgg ccgccaagga ggcggcgac aagaagggca agaagaaggc caagaagagc 120  
gtggagacgt acaagatcta catcttcaag gtgctgaagc aggtgcaccc cgacatcggc 180  
atctcctcca aggccatgtc catcatgaac tccttcatca acgacatctt cgagaagctc 240  
gccggcgagg ccgccaagct ggcgcggtac aacaagaagc caaccatcac gtcccgggag 300  
atccagacct ccgtccgcct cgtcctcccc ggcgagctcg ccaagcacgc cgtctccgag 360  
ggcaccaagg ctgtcaccaa gttcacctcc tcttaggctg ttcgtcttcc tgtgtctcgt 420

anttagctgt tccggtg

437

<210> 6273

<211> 419

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-055-Q1-E1-H3

<400> 6273

ccggtccagn aatccccgggt cgacgggggt accgagatga tcatcggggc agagattcta 60

gaaggcgaag tcggagtcgg agtggagata gatatggacy tgacaggtac agagagaggg 120

atcatcatcg tcgtagcagg agtcttagcg ctagtcttga tgattacaag aggcgtggca 180

gagacagaag tcctagtcgt agcaggagcc gcagctacag tcctgatgat gacaggaagg 240

gtggcagaga cagtttgtcg cctgcacgca gaagcactag tcgctccoct cgcaagacac 300

cacctctcg caagacacca cctcctcgcg aggggtctcc tgctaggcgc aatgatgacc 360

ggtctctgt tgggcgcaat gatgaccggt ctctgttag gcgcaacgat gaccggtct 419

<210> 6274

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-H5

<400> 6274

aggtaccgag tcagaattcc cgggtcgacg ggagtcataa aatcctacat aaaacttgta 60

gatcactgaa tatgatatgt ttgattcctt gcaatagttt tgcgatataa agatgggtgat 120

attagagtca tgctagtggg tagttgtgga ttgtagaaat acttgtgttg aagtttgtga 180

ttcccgtagc atgcacgtat ggtgaaccgt tatgtaacga agttggagca tgaggtatct 240

attgattgtc ttccctatga gtggcgggtcg gggacgagcg atgggtctttt cctaccaatc 300

tatcccccta ggggcatgca tagtattact ttgcttcgag ggctaataaa cttttgcaat 360

aagtatatga gttctttatg actaatgtga gtccatggat tatacgcact ctcacccttc 420

catcattgct agcctc 436

<210> 6275  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-H7  
  
 <400> 6275  
  
 cagggtaccga tctagaattc ccgggtcgac ggggcgttgc aagctgcagg tgaagttcaa 60  
 gattttctcca tgggtggacag gattttgttg ggatattcaca atatctctta tattattaat 120  
 gcatctatat acttggtataa ggggtggatgg ctccggcctta tgccctgggtgt tttgttccac 180  
 tcttgccctcc ctagtgttccg tcataccgggt gttatgttcc cggattttgc gttccttacg 240  
 cgatcgggtg atttatggga cccccctgac agttcgcttt gaataaaact cctccagcaa 300  
 ggcccaacct tggttttacc atttgctca ccaccaccta cttttccctt gggagtcgct 360  
 ctctcgaggg tcatctttat tttagcccc ccgggccaat gcttgtctaa gtgctggtcc 420  
 aaaccgagcg atg 433

<210> 6276  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-H8  
  
 <400> 6276  
  
 attcccgggc cgacgggcct ccggaagtac cacaagaact accagcgcga gacgtggggc 60  
 cgcgtgctga acgtgctccg cgacgacggc gggatcacgg tgaaggggca cgtgcagaag 120  
 ccggtgctca aggagcgggt caagcagttc aacgcggcca tggacgagat ccagcggacg 180  
 cagggcgcggt ggggtggtgag cgacgagcag ctgcagtcgg agctccgggt atccatcgcc 240  
 gccgtcgtgg tgccggcgta ccggtccttc ctccggccgt tcgcgcagca cttcaccgcg 300  
 gggaggcaga cggagaagta catcaagttg agcgcggacg acctcgaggg catcatcgag 360  
 gagctctttg agggcagcgc cgggtcca 388

<210> 6277  
 <211> 174  
 <212> DNA



*(continued)*

*(continued)*

[illegible][illegible]

*(continued)*

*(continued)*

*(continued)*

[illegible]

*(continued)*

[illegible]

*(continued)*

*(continued)*

*(continued)*

*(continued)*

[illegible]

*(continued)*

[illegible]

*(continued)*

aatgatcatc ccaagcctac aaatatgcc a gttgttttaa agaacaagtt aaaacgtggc 240  
atgagatcaa atacacaagc gtgactttaa catcggtgat tacgtctagc tatacaactc 300  
tcatttaaaa ttttttgcac accaccatcg atccaaattg taacgtccct acataagcga 360  
cgatgtctac cgtaccgg 378

<210> 6280  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-056-Q1-E1-E7  
<400> 6280

acggcaaaat gcagtacagg atacagttcc agaggccaaa ccccgtcggc accaacaatg 60  
cgctccacc gccaacacc gcggcgacag cagcgccgac atcgaccccc gcgagctcct 120  
tcctcgccat ggttcaatag gcgctcagca ccatggatca tcagtatact tccagttcca 180  
gacagacaat aacctcgaag catcatcacc atcaccatca ccgagtcacc gttccatgcg 240  
tcacctctc gagtcgatca tcgccatcac atcacaccat caccgacgac gactgttctc 300  
tttcaccttg taattcctct cgtgccattc cattatttat tgattcggtc tgtgtaataa 360  
gagcctctct tctgttccct aaaccggc 388

<210> 6281  
<211> 249  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-056-Q1-E1-G6  
<400> 6281

cggggtaaaa cagataatat cgatataggt tattctacaa gattactcta tagatccatc 60  
agctctaagt aaactgcgta taaatcatgt atgtataagg tatgtgttac tgatgttaga 120  
agcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaagcggccg ctccaaagga tccaaactta 180  
cgtatgcctg caaacgaaat cataactcat ccagagagtc acataaaatt aaatcacagg 240  
gccttttta 249

<210> 6282

<211> 374  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-G7

<400> 6282

gacggggagc acaaagaggg catgatggag aagatcaagg acaagatcag cggcgacggc 60  
 cacggcgacg gcaagaagga cggcgagcac aatgagaaga aggacaagaa gaagaagaag 120  
 gacaagaagc acggcgaggg ccacaaggac gacgacggcc acggcagcag cagcagcgac 180  
 agcgacagcg actgagccag ctccggccgc gctccggcag cagcgtgcag tgtaggcgag 240  
 atcgatgaac gcttggggaga agtgtggcat acatatatgt tgcaggggtt ggagcgtgtg 300  
 gtagcatatg tatgtaatgc gtgacatgtc tcatggatcn tgtgatgtat aataattage 360  
 cggctgcact gcac 374

<210> 6283  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G8

<400> 6283

gacggggagaa cgaaccggaa acccaagaag aggaagactg catctgacat gttccagctg 60  
 gatgatgttt ctgagtcaga ggtageccct gactcccttg gccaatctcc aactatctta 120  
 ttgacactga ctattgccag gacgacacgg gggccagcca ggccgtggaa gaagaggtaa 180  
 ctatttcctc cgactcagcc cctttgccga gacaaaaact tcgaatggta acccggaag 240  
 taaggttttc acaccatttg gcttatttgg accctcattt tcttttgaaa agcagcaaca 300  
 tgagagtcac cgtcaggccc ggactaatga tgatgatgat gaaccacctt ccgaattaca 360  
 aaaaactcat caaaaatgcc agaatgaggt ttctttcacc tttgtccttt tgttttatcc 420  
 atgaat 426

<210> 6284  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H1

<400> 6284

ccgggtcgac ggggcgtctt gtattcatca agcatagtgt gagccatctc aacaggagtt 60  
ctgttcttgc gctccacgac gccattctgc tgaggagtac aaggaccaga taactcatga 120  
gtaatatcaa gttcattaag atagtcatca agaccagaat tcttgaactc ggtccattg 180  
tcacttctga tgtgcttgat cttcacacca aagttggttg aagccctcga ggaaaatcgt 240  
ttgaagactt cctgcacctc atgtttgtaa gtgacaatgt gcacccatgt gtaacgagaa 300  
taatcatcaa caataacaaa gccatataga gacgcacatc ttgtaactgt ggaataatga 360  
ttaggaccaa agagatccat gtgaagcaat tcaaattggc gagtggtagt catgatagtc 420  
tttgctggat g 431

<210> 6285

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H5

<400> 6285

gtaccgatct agaattcgcg ggccgacggg gatcttaatc tttttgctat ggattggtac 60  
acaagtttct taggacttcc taatttggtg gaatttttgc ggttcagaa gtatacgttt 120  
gttacagatt actacagact attctatttt tgacagattc tgttttctat gtgttgtttg 180  
cttattttga tgaatctatg agtagtatcg aagggtatga accatagaga agttataata 240  
cagtagatat tacaccaata tgaatttaga atgagttcat tacagtacct aagtgggtgg 300  
tttattttct tatactaaca aagcttacga gttttttggt gagttttgtg ttgtggagtt 360  
ttcaagtttt gggtaaagat tcgatggact atgggataag gagtggcaag agcctaagct 420  
tggggatgcc ca 432

<210> 6286

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H7

<400> 6286

cgggctcgacg ggggttcaca ttcagctggc tagacgcggt cggcgggaaa ccgagacaaa 60  
aaagcctatc acttcgtttg gttgttgata ttcaagccta ggtataaata ttggcacggg 120  
ataccccgaa ttccctgtt tagatggaca aggaatcagt ccaccgaatt ggcctcaa 180  
attgggtggc ccgcttcgaa agcccgctc tctattccca aattcggagg gggcgagctc 240  
gattttcggg gatattcggg aaccagcccg cgacttaccg cttcgaccgc tccagaaaag 300  
gaagaggtgc actcgagcgg gagagaaggt gagcacaacg gcggcgcatg tcagacaact 360

<210> 6287

<211> 365

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H8

<400> 6287

acggggccaaa aaaaacaaaa aaaaaaaaaa aaaacaaaaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaacatc aataggatga taaaaatata aagcctaagt aaaaataata tggaacagaa 120  
taccocgaaa ttccctgaa aaaatggggc ccccaaaaag tttccagcct tggtttccct 180  
tattggaagg ccaaaccct taaaaagggt ccccaactt aatttcaggg gcggttattt 240  
aaaaattccg tgatgggaaa aacctaggct ttacacaatt taacccctt ggacaaaaac 300  
cccctttcgc caattgggct aaadacaaag gggccccac cgttgcccct tccaaaaatt 360  
ttccc 365

<210> 6288

<211> 457

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-057-Q1-E1-A6

<400> 6288

attcncgggt cgacgggctc tcttaattca cttatatcta tttagggaga tgacagaaat 60  
tggtcattca catggtagt cataaaatac tacataaact tgtagatcgc tgaatatgat 120

atgtttgatt ccttgcaata gttttgcat ataaagggtg tgatattaga gttatgctaa 180  
 tgggtgaatg tggattagta gaaacacttg tgtcgagggt tgtgattccc gtagcatgca 240  
 cgcattggtga actgctttgt gatgaagttg gagcacaatt ttattttattg attgtcttct 300  
 ttatgagtgg cggtcgggga cgagcgatgg tcttttccta ccaatctatt cccctaggag 360  
 catgcgcgta gtactttgtt ttcaatggct tgtagatttt tgcaataagt atatgagttc 420  
 tttatgacta atgttgagtc catggattat acacact 457

<210> 6289  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-B10

<400> 6289  
 ggaatcccta tagtgagtct tattaagtta tcaaagcaaa gtattacgtg catgctccta 60  
 ggggataga ttggtaggaa aagaccatcg ctctgccccg accgccactc ataaggaaga 120  
 caatcaataa ataaatcatg ctccgacttt atcacataac ggttcaccat acgtgcatgc 180  
 tacgggaata acaaacttta acacaagtat ttctcaaatt cacaactact caactagcat 240  
 gactctaata tcaccatctc catatctcaa aacaattatc aagcatcaaa cttctcttag 300  
 tattcaacac actcgtaaga taattttatt attaattctt tatacctagc atattaggat 360  
 tatttaagaa aattaccatg ctatttaaga ctctcaaaat aatcta 406

<210> 6290  
 <211> 122  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-D9

<400> 6290  
 agtgagtcgt attaggacag ctgcacggac ggagcgggtca ggggtgtcaag gcattcggcga 60  
 gtcgaagtca tacagaattg cagcaccaca gttgaacagc gaccgcggga acgacgtgcg 120  
 ag 122

<210> 6291

<211> 338  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-E10  
  
 <400> 6291  
  
 gtattagaat tagaagttgt aaatatgcat tgttgtatcg cgacctgaat gaaataaacg 60  
 aaataatgct cttgttcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagcggc 180  
 cgctcaaaag gatcaaactt aatttacctt tgaatgcaac ttcaaacttc ttcaaaattg 240  
 taaccaaact taaattcaag ggccttcgtt taaaaacttc ttaacgggaa aaacccgggc 300  
 ttaaccaaac taaatcccct tgaaaaaat cccccctt 338

<210> 6292  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-E5  
  
 <400> 6292  
  
 tgagtcgtat tattgcagaa tgaaatccac tcaacctctt gcaatctcca tcaaaactgaa 60  
 ctgaacaggc tgtaaaattt aaggagagaa ataagctgac agcctgcccc tttctacttt 120  
 gcagcagcca gatcaatgtg catataactt gcgctcattc cttccaatat gtagtactct 180  
 tccaagttta taaaatacga aagtggcccg gcacgcaccg ttccacaccc ccaaaggat 240  
 caaacctaac aaacgcggcc gctccacatg atccaccctt acgtacgcgt ccatgccatg 300  
 tcttacctct tc 312

<210> 6293  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-E6  
  
 <400> 6293  
  
 ctaaagtgag togtattagc tcctatcttt cgtgaagcca aatagcttcc aggggtgctgt 60

caaggcaatg aacgaaagaa ttctctcggt ccttgatgcg tctggctctg gccgcgttga 120  
tcttgggatg ttctttgcta gcattgctcc aatctgttct gggcctgtgg ataggcgcaa 180  
gcgtgtcgtc ttcgatgcac tcctttggcg tcttgcaagc gaaggtggta ggggccagat 240  
caggaggagt gacgcgctaa gttacattaa acttctccgt gccgtttaca taccaaccca 300  
tggggctagc gacatgcttg aaatgcatgg ggagtctgac cctaccatgg tatcgtaacac 360  
acaggttcct tgagatgttc aatgatcctg attggggttt tggaattc 408

<210> 6294  
<211> 372  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-E9

<400> 6294  
tagtgagtgc tattaactcc ctccgttcct agatgtaggg tgtacaattt ttgacagga 60  
tattacagaa cgcacatgaa aggataattt cacaagtttt gggcgagggt acacctgact 120  
aattaacatg agaaaataga ggagattgcc taatacatgg aaatgtaatt atatccctaa 180  
aaaaattatc cacacgagtg gtgcaacgca atacacotta tatttcaggt tctttctcaa 240  
aatcctatac accttatatc aaggaacgga gggaatactt acttactcgg tcaatcaatt 300  
aacacgacat ccgctagccc cattacatgt gcacacggat cggcaatgga tcgatcaacg 360  
gctggagacc gc 372

<210> 6295  
<211> 148  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-F8

<400> 6295  
gtgagtcgta ttacaactac gacaatgact acgacgtcga ctacgacgaa taccttgacg 60  
accatcttgt tccaagaacg gggctcaact acagtctgtc tactagcacc agtccatcg 120  
tacttggttc catcatcgcg tcgattgg 148

<210> 6296



<211> 382  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-F9  
  
 <400> 6296  
  
 agtgagtcgt attatgcaca gagaaggcat caataatgca acgaactctg taactgttgt 60  
 tgctgcgctt tttgctaccg ttgctttcgc agctatatct actgtacctg gtggaaatga 120  
 caacaatgga gttgcgattg ttgtccagac tgccctcttt aggagattct tcagctttaa 180  
 tgccatagct ctgttcacat cattggcggg ggtcgtgggt caaataacag ttgtcagggg 240  
 tgaaacaaag tccgagcgaa aggttggtga ggtgatcaac aagcttatgt ggctggcatc 300  
 agtttgcaca accatttctt tcattgcctc atgctacact gtgcaaggcc gccatttcca 360  
 atgggcagca atactggta gt 382

<210> 6297  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-G11  
  
 <400> 6297  
  
 ggtaacggtc tacaattccc gggtcgacgg ggtgggtgaa tggtagcggc gaaagttgcg 60  
 cggcacaaga gaggctagca atgggtggaag ggtgagagtg cgtatgatcc atggactcat 120  
 cattagtcgt aaagaactca tatgcttatt gcaaaaatct acaagttatt gaaacaaagt 180  
 actacgcgca tgctcctagg gggatagatt ggtaggaaaa gaccatcgct tgtccccgac 240  
 cgccactcat aaggaagaca atcaataaat aaagcgtgct ccaacttcat caciaagcgg 300  
 ttcaccatac gtgcatgcta tgggaatcac aaacttcaac acaagtattc ctcaaattca 360  
 tgattactcc actagcatga ctctaatac accatcctca tatctcaaaa caattatcaa 420  
 gcatcaaatt g 431

<210> 6298  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G6

<400> 6298

ttccccgggtc gacgggttct ccccagctac gccaaatctg gaggcacctt caccaggcct 60  
attcgtaagt acggcaagca cgtgttctcc cacatatgac attctgctgc gtcaagcagc 120  
cgcttggcgg tcagaagggt gcctactacg ccatccatca catgcgggcg atcgtaacggg 180  
accatcatca acttctgcta ccgagtaaac tcaaagattg ggccgcgagc gtgtcggcaa 240  
tccaggacgc ggacatcaga caagaattct ttcgcatcca gtcggagttt gcagaaatca 300  
tccatcaaga tgtccttctg acctcggggc agttctacct cagaaatcaa ccgtccaaca 360  
gtgacatcga cacaatgcta caaatgcagg ctgacaacgc ccgttatttc atgactccca 420  
tgatagacgg cggcttcacg cacgct 446

<210> 6299

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-H10

<400> 6299

accctatagt gagtcgtatt attactcttt acgaatctga aaattttgac atacttgaat 60  
attgctatga aaactatgct cataatgtct atgtcaaaga atttattgaa agaatgaccg 120  
ttgcttctaa agaaaataat gatacgcatg aatctttaga taattgtgat ccgatgatt 180  
tgattgaaat atcccttgat gaacatgatg ctttctatct ttgtggccat gatgccaata 240  
tttttgaaga cgaatttgct ataattcctt atgttaaaca tgagatcatt gctattgcac 300  
ccatacttga tagttccttc cagaaaagc atgactgcaa tgattttact ataaattccc 360  
ttgatgtcaa ttgtgctaatt 380

<210> 6300

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-H9

<400> 6300

ggtctaaaat tcccgggtcg acgggttcct tgattgaaaa gtatgatatt actctttacg 60  
 aatctgaaaa ttttgacata cttgaatatt gctatgaaaa ctatgctcat aatgtctatg 120  
 tcaaagaatt tattgaaaga atgaccgttg cttctaaaga aaataatgat acgcatgaat 180  
 ctttagataa ttgtgatccc gatgatttga ttgaaatatc ctttgatgaa catgatgctt 240  
 tctattcttg tggccatgat gccaatatct ttgaagacga atttgctata attccttatg 300  
 ttaaacaatga gatcattgct attgcacca tacttgatag ttccttcgac gaaaagcatg 360  
 actgcaatga ttttactata aattctcttg atgtcaattg tgctaataat atgcaaaacc 420  
 t 421

<210> 6301  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-A1  
 <400> 6301

ggtaccggtc aggaattccc gggccgacgg ggatgacaag atgaagtaca ccatagagtt 60  
 ccagaagcac aaagagggcg gaagcagtag cgctcctgct gccccagcga cagctgcgac 120  
 ggtggtgacg agttcggccc cgacaggcag caccttcctt gccgttcagt aggcgcccgt 180  
 gccgaaagaa accaggaaca agcttcccct tcggttcatt agcaccagca gcccttggca 240  
 acatcctata ccatttggtt atttgtttcg gtaataccaa cctcattggt caaaagacaa 300  
 aaggaaaacc aaaccgaaat aagtggctcc cctctgtgat ttcataagta cactggaaaa 360  
 caggggaggt gccagattaa tagaaatccc aaacagc 397

<210> 6302  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-A10  
 <400> 6302

gacgggccac cctaccatca ttgctagcct cttcgggtacc gtgcattgcc atttctcaca 60  
 ttgagagttg gtgcaaactt cgccggtgcg tccaaacccc gtgatatgat acgctctttc 120

acacataaac ctccttatat cttcctcaaa acagccacca tacctaccta ttatgtcatt 180  
tccatagcca ttccgagata tattgccatg caactttcca ccatgcattc cgtttatcat 240  
gacacattca tcattgtcag attgcttagc atgatcatgt agttgacata gtatttgtgg 300  
caaagccacc gttcataatc ctttcataca tgctactctt ggattattgc atatcccggt 360  
acaccgccgg aggcattcat atagagtaat attttgttct aagtatcgag ttgtaattct 420  
tgagttgtaa ataaatat 438

<210> 6303  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-A4  
<400> 6303

ccggtcagga attcccggtg cgacgggtag tctattgttt tctttctcta acggagctca 60  
cgagatttct gttgagtttt gtgttgtaga gttttcaagt tttgggtgaa ttcttttgat 120  
ggattatgga acaaggagtg gcaagagcct aagcttgggg atgcccattg caccgccaag 180  
ataatacaag tacaccaaaa agtcaaagct tggggatgcc ccagaaggca tccccctctt 240  
cgtccacttc catcggtaat ttacttgtag ctatatTTTT attcaccaac atgatattgtg 300  
ttttgcttgg agcgtcttgt attatttgtg tctttgcttg ttagtttacc acaatcatcc 360  
tttctgtaca cacatcttga gagagccata cattaattga aatttgtag aatactctat 420  
gtgcttcac 429

<210> 6304  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-A6  
<400> 6304

ggtacaggtc aggaattccc gggccgacgg ggattttaca gatgagtaca ctccggtttc 60  
gcggggaaag aagggatatg agaaggagaa aagcatttcc aatagcaagg tgaaggcttc 120  
taaagtacag aacgaagaaa ccggttctga tgatgaatgc aagccaaaat ctgagaagag 180

aagtccagct gcgggcaaac ccaagatttc caagattaag aaaccaaag gtgaatatga 240  
 tgatacaaag gaggaaaaga aaataaaca ggaagttggt atcaagaaag atgaaacgaa 300  
 ggctgctggg gtgaagaatg agggggcgac ttctacatgg ctgaaaccta tgatgtccat 360  
 gtcctcggca tcgatctttc tatcaacatg gtttcgttcg caattgatcg tgccatcggg 420  
 cgctcatgct 430

<210> 6305  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-A7  
 <400> 6305

gaattcccgg ctcgacgggc aaccataatc tctacgtttg ttctccgcta ttagtggctt 60  
 tggagtgact ctttgttgca tgttgaggga ttgttatatg atctatgtat gttattattg 120  
 ttgacagaac ttgcactagt gaaagtatga accctacgcc ttgtttccta ccattgcaat 180  
 accattttacg ctcactttta tcattagtta ccttgctgtt tttatatattt cagtttacia 240  
 atacctttat ctaccttcca tattgcactt gtatcactat ctcttcgccg aactattgca 300  
 cctatacaaa ttactattgt attgggtgtg ttggggacac aatagactct ttgttatttg 360  
 gttgcatggt tgtttgacag agaccatctt catcctacac ctcccacgga ttg 413

<210> 6306  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-A8  
 <400> 6306

ggtacaggtc aggaattccc gagctcgacg gggaacgtaa tccccacggt acgccggttc 60  
 caagttcagt atccgcccc gcattggcca tatcgccatc cgcaatgccg cgctaagtga 120  
 gcacatgctt gccgtacata catgccgaag aactccacgc cggcggctcg ggtcgcgtct 180  
 gccgccatgg tagcgtggc tgtcgctaac cgcgtgctcg aaaagctcgc gctggtgccc 240  
 ctcaagtcct acgccttctt cctcgctcat ctgagcatgt tcgggtacct cggcctgtac 300

gtttcaatac gctaagtgat gtaccgcgcg ggggtggtga ccctggacat gctggaactg 360  
ccacagatcc gggtcgctgt c 381

<210> 6307  
<211> 146  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-A9  
  
<400> 6307

taccggtcta gaattcccgg gtcgacggga agttataaga cgaccatcta gaaggagggt 60  
gtgacgtcaa gcacaagcac tattatcacg ggaacatgct ataatgatgg cgccatgatc 120  
ccattgagaa gtcgagggca cattta 146

<210> 6308  
<211> 220  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-B1  
  
<400> 6308

ggtcaggaaa tcccgggtcg acgggaacac gatcatccgc ttctaaaact ccgttgacaga 60  
agaatgtcct taagcaggat agcagaggtc caagacgatc gaataagcac ggctccccgt 120  
ctgggagttc ctaacgacac ctggatctcc ggggtcttca agtccttcca tccatacacg 180  
gtggcatctg gcaccaccga tacaccatcg ggctgcacaa 220

<210> 6309  
<211> 231  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-B10  
  
<400> 6309

gacggggaaa cacttcaca atcaatgttc gccgcgatta gaggctttgg aatgccgccg 60  
cgctacagga tgcaggattg cgtgcgcatg catgctaagt tcatactctt caaaaatgtc 120  
tgcgaaatgc aagtaagagg ccgtcgctt ataccctacc aacgggggaac aatttacgct 180

cacctatatc aatagccatg cagcagatct cactttcgca atctaggata a 231

<210> 6310

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-B12

<400> 6310

ataccgggc cgacgggttc gctaacgagg agcccggtga gtttgctttt caggatccag 60

tcaactctga cgactgtgca ggcaagatga tcataccctc gaaatcagta ctatctttgc 120

tatgctagtt tgctcgctct ttgctatgc cattgctatg atgcctacca attgcttgca 180

agcctcccaa attgccatgt caaacctcta acccaccttt atcctagcaa accgttgatt 240

ggctatgtta ccgctttgct catccctctt tatagcggtg ctagttgcag gtgaagattg 300

gaggtcgttc cttattggaa catcttttat ttacttggtg ggatatcatt atattgcat 360

gttatcttaa tgcacctata tacttggtaa aggggtggaag gctcggcctc tcgcctagtg 420

ttttgttcca ctcttgccgc cctag 445

<210> 6311

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-B2

<400> 6311

ggtcaggaat tcccgggctg acgggtatcg taatcgagag gagggtcggt gggcagccgc 60

tgcgatggcg ccatcggaac cgagccgtcg tatgaggacg ccgttccaga tcaggttcta 120

cacctcttct cgtcggccat caagcacgca cgtcgccggt cgcctccatg tcgccgcctc 180

tcgagagctt tgtgcgtgga agagagccgc ggggtgtgag aatgagatga aacacgttcc 240

aagggtcttg ctgcaaagt atgctgtgcc ggttactggg tgggtcccat ggggtccaggt 300

ggcaacggtc tgccagtcaa cgcaactgca gcgagtttgg gacctgggtt gtacgccttg 360

aaaacatttg ggaccaatt ctatactttt gaagtttttag gactagattg acaca 415

<210> 6312

<211> 171  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-B3

<400> 6312

cgggccgacc ggatcgaaag tccaaatgat tgcataaagg gatagacgac atccccgattc 60  
aagtgaacaaa gattttgcaa caagcctgac atgcgagctc tacatgatcg aagcttattg 120  
tgacatcaaa gcgacttcag agctcttaga ggaagacatc gcagtcaaag t 171

<210> 6313  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-B4

<400> 6313

ggtcaggaaa tcccgggtcg acggggagca caaggagaag aaggacaaga agaagaagaa 60  
ggacaagaag cacggcgagg gccacaagga cgacgacggc cacggcagca gcagcagcga 120  
cagcgacagc gactgagcca gctccggccg cgtgcagtgc aggggagatg aacgcgtggg 180  
ttaatttggg gcgtgtggta gcatatgtat gtaatgcttg acatgtctca tggatcttgt 240  
aatgtaataa ccggctgcac tgcattgtgc ttgtaataat aacgttaagg aatttccatt 300  
ggtaatttgg taccatcctt ttttccaagc tttttgtgta tgtatgtatg tatgtggtgt 360  
ctctgttcat ctctggatct ctccgaccga gcgtgattaa cggctggggg atcttttagga 420  
atgggtt 426

<210> 6314  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-B6

<400> 6314

caggtacagg tcaggaattc ccgggccgac gggacttgg agctatattt ttattcgcca 60  
catgatatgt gtttttcttg gagcatcttg tatgatttga gtcttttctt tttagtatac 120



cacaatcatc cttgatgtac acaccttttg agagagacac acatgaatta gaatttatta 180  
gaataactcta tgtgcttcac ttatatcttt tgagctatat agtttttgct ctagtgcttc 240  
acttatatct tttagagcac gtcagtgggt ctattttata taaataattg atctctcatg 300  
attcacttat attattttta gagtccttta gaacaacatg gcaattttct tttaggcata 360  
ataagaactt tcatataagt gcattgaata ctaagagaag tttgatactt gatgattgtt 420  
ttgagata 428

<210> 6315  
<211> 354  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-B7  
<400> 6315

gatgcagcaa ttgaaagatg cacaggtact tgatgagatg ccactaagtc aatctgctat 60  
ctcagggttat attggatggg aatttatctt acaatacaac tacacctttc ttgaatcaga 120  
ttcggactgt ttgcgtgaaa ttttgctcta tagctatctt tgggtggctt tctttgtttt 180  
gctttatgtt gtatagtcag tagaaaactc aagcccatc atctaacaat tctgtagtaa 240  
tgactgaaac tattcgagga caaatcttgg attggtgttg tcggttgaat ttagagttgc 300  
atggttgaca cgggtcaacat ggcaaagaaa gtatagaaga tttgccaac cagg 354

<210> 6316  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-B8  
<400> 6316

ggtacaggtc aggaattccc gggtcgacgg ggcacatata catgttcctt ggaatattga 60  
tggatcccaa tgtcgtactt caaatgcag cagcgaagat cctaggggtca gtgaatctgc 120  
ctacacttca catgtgtaaa tctgcacttg atggtctcat tgcaggtctg gacaaatttc 180  
cagaggatca agatatatat ggtgttctgt tttccattgg caacaatcat gggagctttt 240  
cagccaatat agccaaacat ttagccaacg atatcaatat ggcactctgat ggagagctga 300

tcttgataa acctagaatc aaagcattgt taatggcttc tgctgtggct gcttatgatg 360  
 ataaagacat aaaactggat ataccgcag ttatattatc acatgcaatt cccctatttg 420  
 ggatgatctc gtgtgcact 439

<210> 6317  
 <211> 213  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-B9  
 <400> 6317

gggtcgacgg gaaaccttat cgtcaccaat ggtgggagat tcaccaccga ctaccagcag 60  
 acttgttctg agaagctccg gtttgtcaca gacaaatact caaccttgca ccgaatgcga 120  
 tagattttga attacaccat gttgaaggcg ctccatcata gcataccatg tatggctaca 180  
 tcccttcgag tattggetta actaactttt agc 213

<210> 6318  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-C1  
 <400> 6318

ggtcaggaat acccgggtcg acgagaaggc aacgacagcg gcagagccaa cagatggcaa 60  
 gctgaaacct tctccggtag ggctcgatcc tgggtgagatt gagtccccgg caggggctga 120  
 cgccagcacg acaggacctg cgcgaccggg tgaggaggcg taggagaaga aaatgggtgca 180  
 gcacccactg tatttcgtca gcaacctctt gcagggggct aggtcgaggt actcaggtgt 240  
 gcaaaagctg ctctttgggc tccttatggc ttcgaggaag ctgcgccatt acttccaagc 300  
 gcacgaaatc acggtgggtca cccgcctccc attgcaacgg atactacaca acccagatgc 360  
 gatggggagg atcgtagaat gggtcctgga gctgtcaagt ttcggtttga aagttttaaa 420  
 gtacctccat gattcagagc a 441

<210> 6319  
 <211> 430  
 <212> DNA



<400> 6321

cggtcaggac atccccgggtc gacggggaaa gcaagcagga gtgtgggtctc cactcacata 60  
 tgagagcacc ataagaagag gggaggcttc gcatcacaca tgatcttgcc agttctggcc 120  
 gtggctcttc acgtcattgt caacattagg atctacggct gggcataata ggtcgcataa 180  
 ggacacattt aatgtgtcac attttctcca catcagctgt gaacactgtg catatcgtgt 240  
 catgctgcct gcgtttaaga cggttgtaag acagcgaagt gcttgataat gtaaactgaa 300  
 gaagtcatgt atcagatgta caaccgcac aagcatggag ccaaattcaa ttcaatggcc 360  
 gtcgttttaa aacgtccgca ctagaagatc caagcttaca tccacc 406

<210> 6322

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-C4

<400> 6322

cggtcaggaa ttccccgggtc gacggggaca gcttgaggta caactgatca aagtgcaccc 60  
 aatgctgaag acgactatca tgaggctgac aaggacgata aaggatcagg agaactgtga 120  
 tcaaggcaac agtcatagac tgctacacct gatagcacag gaagatgcac tatcaggatc 180  
 agttgcctcc tcaagggtaa aatcaagcac tgctcgagct tagatcagtc atcttatgca 240  
 tatacattga acgtgcagtc ctcatTTgaa gacactaacg acacatacgc cattcacgac 300  
 ctggatgcat gtggattccg catcgtgaac ctgattagtc accatgtatc cgca 354

<210> 6323

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-C5

<400> 6323

ggtataggtc aggaattccc gggtcgacgg gatcataatg ggctgctgga acatttggat 60  
 gcagcgtaat ggagtgattt tcaaggctat tccaacttcc gttctctctt ggagatcttc 120  
 gtttcgggca gatatgcttt tgcttaagca taggatcaag gacaagtttg ctgatagact 180

ttctagttgg attgatcagt tcttaacata attatcatgt tgcctcaagg tttcactagg 240  
 actggagttg ggtacggtga tctcttgttt atttgggaca tctgtaaata tttttattgc 300  
 tttaatatat ttaccgtaga acgattgttc tacggttttc ggttcaaaaa aaagggtgcaa 360  
 ggctggtcac gcgtggatgc ctacattcca gggccaattt catcctgttt ttctgggcc 419

<210> 6324  
 <211> 243  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-C8  
 <400> 6324

gtacaggcca ggaattcccg ggtcgacggg aagctcatga tgctgcacaa catcaggacc 60  
 aacctttgta tgaatacgac acagtgatgg gataatgctc ccccttttat gaacttctac 120  
 tactttgtca acaacaagtt gaagtagaaa aagtaagtaa aaccggccgc acgagaggat 180  
 tcaagcttac gtaagcgtgc atgcaacgct agagctcttc aacagtgtca ccaaaattca 240  
 att 243

<210> 6325  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-C9  
 <400> 6325

aattaccggg tcgacggggg gcatggaata ttcatttggc cagatgaaga tgctcaaaaa 60  
 ctgtcatatc atttggcaaa gccaaactgg tacttgccctc acaaacatct cctctcgaca 120  
 taaacttgga ataattatgg tgatcaaatg gctcaatgaa atgatgccaa attgtgtgga 180  
 gagatgtttt atgggtataa gaatgatctg ggaatttatc atgatttttg aagcaatata 240  
 aaatatactt gcttcataac ctaacaatat tgccagaatc aatgatttgc ccctgtgctc 300  
 acatagataa ttgtatgagg ctgacaatgc gtggaatatg ttaatatgat cacattaacg 360  
 agtgtgcaaa agttcagcta atttgggtac tcttagctag tacttccttc 410

<210> 6326

<211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-058-Q1-E1-D1  
  
 <400> 6326

```

gggtcccggtc aggaatatcc cgggtcgacg ggcccaagac ggcaccccc aagcctgcac 60
ccggccccgcc gccatacgcc cgtcaaaaaca ccgagacctc cccctagacg tacgccgaca 120
attgccatgc atgcatgatg ccagtaatat ggtatgcgaa ttaactaaag aagaagccac 180
atatatcatg gaggtacccg gatatataga tagtgctcga tccataactt atagctggat 240
ttcaacactt atatatctag atttacgccc ctcaaaaaat atatttagat ttatgttatt 300
acagtagaaa caatgtcatg tatgaccac ggtgattgta cttatactat tcatgcaata 360
tatatgtata taggaaaaaa aaacaataga catcaaaaaa aaaaagcggc cgc 413
  
```

<210> 6327  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-058-Q1-E1-D10  
  
 <400> 6327

```

gggtcgacgg ggtgcaccaa ttaaagcaga tttaggcagg gagagatgac acacaacaga 60
tccatctatc gtcgctcgcc actgctgcaa tcttcctgca cctgacggat tccgccgggg 120
gaccagtget ccgccctgtt tacgctgcta actccccaaag acttccttcg attacccccg 180
ctcgcttcac tccttcgacc gatagtgtct ggtcaccttc ctccagataa acattaaatc 240
tcaatattca gatgtgtgtc atttgaaaat atatcaaaga tgtgcttagc ctaacatggt 300
tgcgctctag tagatacatg cataca 326
  
```

<210> 6328  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-058-Q1-E1-D11  
  
 <400> 6328

ggtaccggtc tagaattccc gggtcgacgg gtgaccttaa atgttgcata tgcattgcta 60  
 taagactgta tctgaatgcc cgtacattga acaacactga cagtttttgt cttctggcct 120  
 atgaaagctc cgtctaagga aggctgactc aaggatccat gcccttgatt cttgctccga 180  
 aagtggacct gaaaaaacta caagttcgac gattgcgcga ggaacacaat gggttttctc 240  
 tgaatcatct ggtaattttc ccagtcttgt acatgttgtt ctttgaatca tgtgggtattt 300  
 ctaagtgcac tgcattgtgt gtgggtggata caaaaagagg acgcgacgac tgatggctgt 360  
 tctctttaca cttggcgtgg ttgacaggct atggagcang caattttgct atttggtaa 420  
 tgatggagat gaattcggga gagatgtgga cggg 454

<210> 6329  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-D12  
 <400> 6329

ggtaccggtc cagaattccc gggtcgacgg ggaggtctac gaggcattctc aatctatttt 60  
 gtgaacccat cagtcggata aagcaccac tgggcaacgg tgatctgacg caccgccgca 120  
 gttaagtttt catggcagcc acttaaaggt tctcatcacc tcccatcccg atcgacttac 180  
 aggcgccgct gtaaagccat tatcatgatc taggaaacca cttttcaagg gtgtcgcgat 240  
 atccctatgt ttcaccgaca acgtcttgaa ttatcagctt ctaccggcaa tcagtcccat 300  
 aggcgatttc ggcattatag gattacagca gctcctggga gtctgcatcg cctattataa 360  
 cctccagata cctatgccca gattataaaa gctccac 397

<210> 6330  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-D5  
 <400> 6330

taaggtcagg aattcccggg tcgacgggca gaagaaacga atatgaaatc gccctcggc 60  
 ttggtgaggt ctgggccgtt tacaaggact ggaaggctgg atggactgca cgcgatttta 120

gcagctgtga ctatgagttg gtggagatat tctgccatac taattcgtcc atacgagttc 180  
 ggctgctgag gaaggttgat ggttacaggg cagtatttac aaggagagaca actgtggaga 240  
 ccataggcaa ggatgagtac ctgaagttct cccaccagat cccttgcttc catctgacaa 300  
 acgaaggagg aggcaagctt cggggctggt tggagctcga tccttattcc gtgccggagg 360  
 agttttctct gactgactga ccttgttcat gcatggtgaa cctcctggaa ggctctttt 419

<210> 6331  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-D6

<400> 6331  
 ggtacaggtc aggaattccc gggtcgacgg gcatgcaata ccaacagaga ttcgtcatga 60  
 ttttcaagtt tgacattgcg ccagaatatg gctcaagggc tgaattctca ggacactatt 120  
 atactacaag tcatcactgt cttcagccat cattctcagt cactgaacca atcaaatcaa 180  
 tactatTTTT catcaatggt ttcttgaggg tggtagttgt tcattagtaa agaactaagc 240  
 taaaattttg taaacatagt ctcaacataa tgtgtcaatg atttcccata ctaccattgg 300  
 aaaaaataca ctcaatgtgg tccaatgcac agattgtctc accat 345

<210> 6332  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-D7

<400> 6332  
 aggtacaggt caggaattcc cgggtcgacg gggcgtggtg attgagatgt gctgccatac 60  
 attgtattag ctcggagaga gcaaattggat cggatgtacc tttgtgtgat gagtgttaatt 120  
 aagctgtgac caatatgtac acggccgcat gttgcgttgc gtgggtgctg tcgccgttct 180  
 tgtgtactcc attgttgtgc tgtgatcatt cctttgaata aatcggctcg atcttcaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaagaca caccaaagga tcaaaaaaaa aaataacaat aaaaacaaaa tcaaaaaaca 360



atcaaacaca aacacataaa ttcaaaaaaa caggcggtcg ctaaaaaaag gggggccccc 420  
caaaaaatcc ccccttctc g 441

<210> 6333  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-D8  
  
<400> 6333

ggtagcggtc aggaattccc gggtcgacgg gatagagtgg gactaatgcc cttaagatta 60  
tcaagagtat atccaatagc aacacgggtgc ttcttcagag ttctcaataa tctccttcat 120  
gatctgaaag gtttagcacta ataataacag gatatatctt cttttcatca agataagcat 180  
atttcaaagt atcaggtaat tgtttaagct caaacactgg atcaccccttg ggtggaggag 240  
tatccccaag gatttcaaca ggcaaattgt gtttcaaac aggcatttga ttaaagaata 300  
tttcatctaa ttcttctctc tcattcataa acatatcatt ttcatgggtct agcaaatatt 360  
gttctaaatg atcaatggga ggcacgacaa tagaagcaag atcaataatt tcatccttac 420  
taggcaaatt ttttgtcatg gggttgt 447

<210> 6334  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-E11  
  
<400> 6334

aggtaccggt ctagaattcc cgggtcgacg gggggcgcaa gtgaaatacc actactttta 60  
acgttatttt acttattccg tgggtcggaa gcaagagcta gaaaagctgc tgcaagacca 120  
ggaagttagt aggacctctc tattgcaatg gtgctatgca agctacagtg aggtatttag 180  
ctctggatg catttctctg ctgttcgtgt ctctgtagag agtattctga gatatgggtct 240  
gcctgcacgg ttctgtctg ttgtcctagc accatctaca aagagtgaga agaaagtaag 300  
gaacatcttg gaagggctat gcggcaatgc caacagcagc tactggagat ccgaagatga 360  
cgtgggcatg gctgctggcc tgggaggcga gacagagtcc cacccttatg tctccttcac 420

cataaaacttt gtctgagcgt gtttgatgta tattatatttg tg 462

<210> 6335  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-E4  
  
<400> 6335

aggcaccggt caggaaatcc cgggtcgacg gggaggttga gaagctgatt ggcaggatag 60  
tgaagtggct gaagcccgggt gggcatatatt tcatcaggga atcgtgcttc caccagtctg 120  
gggattccaa gaggaaagtg aaccgcacgc actaccggga gccgagggttc tacaccaagg 180  
tgtttaagga atgccactcc tatgaccaag aggggaattc ctttgagctt tctctggtaa 240  
cttccaagtg cattggagct tatgtgaaaa gcaagaagaa ccagaaccag atatgttggc 300  
tgtgggagaa ggtcaagtgc acagaagaca aaggctttca gagattcctg gacaatgtgc 360  
agtacaaatc cactggaatc ttgcgttatg agcgcgtggt tggg 404

<210> 6336  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-E5  
  
<400> 6336

aggtagcagg caggaattcc cgggccgacg gggaagataa agaagcacga gctgagggcc 60  
aaggccaagg agcttgcccc tgtgaagaag agcaggatgt gagctccgtt gctgagatac 120  
atataggaat agtggaccgt ggacgctagc gccatcgtga ataaaggtta tgctctcggg 180  
aaattcctta gtgaagactt gtctgtataa gaaattcaag cactcgatag ggcacgaata 240  
cgaacaagag ggagatataa cacgaactct gcttatgtgc tccgctgtgt ttcgttggtc 300  
agataaagac ctcatggctt acgctgtgta gcctcttcta aaa 343

<210> 6337  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E6

<400> 6337

tacaggtcag gaattcccgg gtcgacggga ggcaagctgg atctgcccac ggaagcttcc 60  
gatctgcccc gcgggcgctcc caattcgggtg ccgggtccgaa gcctcaacgg gggttcgggt 120  
tttcccgggg ggcccaaata cgggcaaccg gtggccggca attttccggc aagcaacttg 180  
gattccgtct gcgcctccaa ctctgcccac aacaggcgaa gggctctgtg tgtgaaaatt 240  
tacgatgata tgtcggtaaa tattaaattc aagagatctg aggtgatgaa aggtgagaag 300  
atgttacaag ccaggtgctt gtggagaggg cggagaagag cggaaaaaaa aagagatgtg 360  
aacatctaga ggcctttgcc atgttgggtg cgctcgcaag gcaagccgcc accaataata 420  
aaaagttttt ttttgcctcg ggggg 445

<210> 6338

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E7

<400> 6338

aggtacaggt caggaattcc cgggtcgacg gggatgacaa ccttgctatg gtggtggctg 60  
acgacgacct tgctatggtg gtggtcgacg acgaccctgc tatggtggtg gctgacgacg 120  
acctcgcgat tgtggtgcct gacgctgacc tcgctgtttg gtgcctaata atgacctcgc 180  
gatggtagtg gcgccggcga ttccacagct gggcgacagg accatgccaa ttgtggtaga 240  
ggagtacatc cgcgttgga tttgccactc tgagcgcac aggttgatga aggagaagaa 300  
ggaggagtga agatgttaag aaaatgaagt ggtaatgtta agcatgttgg gttaaagctt 360  
gtcaatgtta agtatgtcag ctttaatttt atgcatgctc atggatgctg tatgacagt 420  
tcatct 426

<210> 6339

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-F1

<400> 6339  
 ggtcaggaat tccggggccg acgggcttct aaaccggtgt gagcgccctt cggttcgga 60  
 ggtgggacta aactctgacc gctactagga ccaactcttt agtctcggtt tgtggtatga 120  
 accgggacta aagggtgagc ctctggcccc gattcaagcc accaactggg accaatggtg 180  
 gtggggccggg agcgaggccc attgggtccc gtttgtccca ccaaccggga ccaaaggggc 240  
 cggacgaacc gggaccaatg cccccacgag gcccgcatg cgctggccg cacgaaccgg 300  
 gaacaatgct cacattagtc cgggttcgtg actgaaccgg gactaatgtg aatattgccc 360  
 tgtgaccaa gcccagtttt ctactagtga attctcatgg agaacgaaac atttgaccat 420  
 ctagggcgtg cctccttcc 439

<210> 6340  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-F11

<400> 6340  
 acgctgccag gtaccggtca agaattcccg ggtcgacggg aaactcagat tttcctcatt 60  
 attaaaaaat ggaaacaaaa agttcaaaaa ataaaaaagt agaagttcaa ctttgaaaaa 120  
 tagaacgctt caaaatttca taaaaaagat taagaaatga aaataggaag tccatattat 180  
 aaagggtggag aagttcgatg attatagaaa attcagattt tccttggtat taaaaaatgg 240  
 aaacaagaag ttcaaaaatg aaataataag aatttcaact tttaaaaaata gagcgcttca 300  
 aaattcataa aagaggatta agaaattcag attaaaattc ataaaaaact cagatatctt 360  
 catgtaacca agaaacgttc agattgataa ctaacagaag ttcacgtact acgcggtgtg 420  
 cattttgtat taaaaaagaa agaaaaaata aaagggtgaa atatttggtg 470

<210> 6341  
 <211> 311  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-F3

<400> 6341

ggtcaggaaa tcccgggtcg acgggatcct caggcatgac aaattcgctg tcgttgaggc 60  
 ttgcctcgtc ttccggaggga ggcataataat tgtcatcctc gacctctctg tctgccgctc 120  
 tcttatgagg gctgggttct ccatcctcct gcgttgaatc ctgctggagg gggttgtctt 180  
 cggaactgtc cgggggtgtta ttgtctcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacgc 240  
 gccgctctaa aggatccaag cttacttacg cttgcatgca acttcatagc tcttcaaaag 300  
 tgtcacctaa a 311

<210> 6342  
 <211> 224  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-F5  
 <400> 6342

gaccggcagg tacaggtcag gaattcccgg gtcgacgggg agcagatcaa ctctgaaact 60  
 accgaaaagt tccaagtttt cagttccaaa ttttagcatt ggaagtctca aggctcacat 120  
 cgtactaaaa ataatgccga aaagacggat tgaaacataa ccaatccaac cgggataagg 180  
 ccaaggggaat ccggggcccaa aatccccaag aaccaattag gcaa 224

<210> 6343  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-058-Q1-E1-F6

<400> 6343  
 ggtaccggtc aggaattccc gggtcgacgg gaaggcccca caccctggt caaggtgcac 60  
 caagaccccc gcttagaagg aataagatca taccacgaag ggataagatc aagatcccta 120  
 aaaagggggg ataacaatcg gtgggggaagg aaatgatggg atttctttcc tcccaccttt 180  
 gccaacgccc caatggactt ggaggggaag aaaccagccc cctccagccc tatatatagt 240  
 ggggaggcgc atgggagctt cacccttgcc cctggcgag cctccccct ctctaactcc 300  
 acctcctcct cggtagtgct tggegaagcc ctgccggaga actgcaagct ccaccaccac 360

gtcgtcgtgc tgccggagcc ctccctcaac ttctcctctc nccttgctgg atcaggaaag 420  
angagatgtc ccaaggctgt acgtgtg 447

<210> 6344  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-F7  
  
<400> 6344

aggtagcaggt caggaattcc cgggtcgacg gggcttgtgt tgaagttagc aagtcccgta 60  
gcatgcacgt atggttaaag ttgtgtaaca aatttgaaac atgaagtgtg cctggcttgt 120  
gcatccttat gagtggcggg cggggacgag cgatgggtctt ttctaccaa tctatcccc 180  
taggagcatg cgcgtagtac ttggtttttg atgacttcta aatttttgca ataagtatat 240  
gagttctttt gactaatgtt gagtccatgg attatacaca cttttacctt tccgcctttg 300  
ctagcctctt cggtagcgtg cattgccctt tctcatcttg agagttgggtg caaacttcgc 360  
cgggtgcatcc aaaccccggtg atacgatacg ctctatcaca cataaacctc cctatatctt 420  
ccttaaaaca accaccatac ctaccta 447

<210> 6345  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-058-Q1-E1-F8  
  
<400> 6345

aggtagcaggt caggaattcc cgggtcgacg gggtaccttc tatgggtagt tctatccttc 60  
acggaacttg tagtcttgca gacgtattg ccaggcttgt agttgaactt gaaagacaat 120  
tcatgcacaa gcatccttgc atacaaagga ttttctaga attttctaatt attgagcatt 180  
cttctgttaa gcgtgccgt actatctttt tggctcatga gtttagattc ataataaaag 240  
aggccaaaga aatatttgcg cattataggg tggacgcttg ccgtcctccc atagagtcta 300  
tcctttttta tcaagaagaa ataatgcgtt ttcaatctct agactatgtt tctttcaatg 360  
aaaatcttag aaaaagggtt cttccaatg ttttagttga tagaatttct gagcttaatg 420

atgatttggg caattcgaaa taatgaacta ggat

454

<210> 6346

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-G10

<400> 6346

ggctctagaat taccgggtcg acgggttggtg ttatgaagtt ttcaagttct gggtaaagat 60

ttgatggatt atggaacaag gagtggcaag agcctaagct tggggatgcc catggtaccc 120

caaggtaaaa ttcaaggaca ccaaaaagcc taagcttggg gatgccccgg aaggcatccc 180

ctctttcgtc ttcgctctatc ggtaacttta cttggaacta tattttttatt caccacatga 240

tatgtgtttt gcttgtagcg tattgtatga tttgagcttt tgatttttag tttaccacaa 300

tcatecttga tgtacacacc ttttgagaga gactcacata atttgaaatt tattagaata 360

ctctatgtgc ttcaattata tcttttgagc tatatagttt ttgctctagt gcttcactta 420

tatcttttag agcacggtgg tggtttt 447

<210> 6347

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-G11

<400> 6347

ggctctagaat taccgggtcg acgggcgacg gtagaggcgc ccacatcaac ctcaagggtca 60

aggggcagga tggcaatgag gttttcttcc gcatcaagag atccacacag ctgaagaagc 120

tgatgaacgc ttactgcgac cgtcagtctg tggatctcaa ctccactgct ttcctttttg 180

atggtcgtag gctccgtggt gagcagaccc ctgatgagct tgagatggag gaaggcgacg 240

agatcgacgc catgcttcac cagaccggag ggtgctttcc tggcccttag aaggagcttg 300

ctgcagcctg gctgttctat gtcgtatgct acctttagaa ctagagtaaa atgtaggaag 360

tgaaagaact tgtgaggcta tggttctgtg ccatagcctg aggggggggtc tggaggtgaa 420

acaacatcgg agtactgttg atgtcgtgac tg 452

<400> 6348

<400> 6349

<210>	6350
<211>	402
<212>	DNA
<213>	Triticum aestivum



<223> Clone ID: LIB104-058-Q1-E1-G6

<400> 6350

aggtacaggt caggaattcc cgggtcgacg ggacgtggga tgaaatgtgc atcttccttt 60  
ctttattttt gtgtcatacc tatgtaccgt gggactgaaa aatgttgtat cttcagcaga 120  
atggagacat cataaatatt gatgtaaatg tgttccgaag tgtaagttca ctctcctagg 180  
attgtggata tgcttatgtg gtatgtttgg catacagtcg gatatttgctg acaaattgct 240  
tgcaaggctg ataggtttat tgagatgcct catatgcaag ctcataaccc actgttaaag 300  
ttgtctgttg tggagatgac tgggttccat ggctaataa acacatttta cctgttatgt 360  
acttcatctg agctggatag caaattgcat tttaatgctg at 402

<210> 6351

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-H11

<400> 6351

ggtagcggtc tagaattccc gggtcgacgg gtacacccac tgcaaagctg ttggtccggg 60  
caggtgcgcg ctgaaccacg gcgggtgctg ggcggagacc aagggggagc gcaccttctc 120  
cgctgctcg gacacggcgc tgagcgggtg ccgggtgccg ccgggggttc aaggcgacgg 180  
ccacaaatgc gaagacctgg acgagtgcaa ggataagctg gcgtgcacct gcccgactg 240  
ccactgcaac aacacctggg gcagctacga gtgcggctgc aggggcaacc aggtgtacat 300  
ccgcggggag gacgtctgcg tggccaacag catgtccagg ttccggtggc tcgtcgccct 360  
cctgcgcgtc tctgcgccg ccggcctagg ggtagccggc ttcattctct acaagtacag 420  
gtcaggtcg tacatggact cggagatcat ggccatcatg tccc 464

<210> 6352

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-058-Q1-E1-H5

<400> 6352

```

ggtacaggtc aggaattccc gggccgacgg gctagttctc atattcctgt gtggcagacc 60
aaattggtgt ggaagccaga aatgcagtac acgtaggaga tgatgaaact gcagacaagg 120
cgggtgctaa cgctattgga ctcaagtgtc ggtatgcaat tttctttcat acattgtggt 180
ttcttccccg tgcagacatc gtgtttcaat agtatcgggt attattaatt tatcgggaca 240
aaaagcgaag gaaaaaaaaac attattgaat atctgggtcg gtggctgacc ggctggctaa 300
ctgattgtta ctgatgttgt ccatttttag gctgtgggga gaagatgtga agaaattttc 360
tgagatacag caccagatcg tagcaaaagg ctcacgatga gtgcagggca atgtctctgt 420
ntgcctgatt tgttcatttg attgcaaa 448

```

```

<210>      6353
<211>      435
<212>      DNA
<213>      Triticum aestivum

<223>      Clone ID: LIB104-058-Q1-E1-H6

<400>      6353

```

```

aattccccggg tcgacgggat atgaatcaat ctgggtagta gctgattcgc ttgaccaaag 60
tggetcactt tatcccagtg aaagccacct atacaagtgc gaagttggcc atgatata 120
tgaccaggat cgtatgtctg catggagttc cgaggaccat cgtatcagac agaggaacac 180
agtttacctc aaagttttgg aatcagctgc accagacttt ggtactagg ctagagttca 240
gtacagcctt tcatccgcag acagatggat agaccgaggg agtcaatcag atcctgaagg 300
acatgttgag agcgtgtgcg ctagattatg gatctagtag ggatgataat ctactttacg 360
cagagttctc atacaagaac agttaccaag ccagtttgaa gatgaccctt tttgagcctt 420
tgtatgggag aagga 435

```

```

<210>      6354
<211>      450
<212>      DNA
<213>      Triticum aestivum

<223>      Clone ID: LIB104-058-Q1-E1-H7

<400>      6354

```

```

ggtacaggtc aggaattccc gggccgacgg gtatatgata tacatgttat tgatgtgtac 60

```

cttactaatg ctcgcagtag cacctgggta tttgatactg gttctgttgc taatatttgc 120  
aactcaaac atgggctacg gattaagcga ggattggcta aggacgaggt gacgatgcac 180  
gtgggaaatg gttccaaagt cgatgtgatg gtggtcggca cgctacctct acatctacct 240  
tcgggattag ttttagacct aaataattgt tatttgggtgc cagcgttgag catgaacatt 300  
atatctagat cttgtttgat gcaagacagt tattcattta aatcagagaa taatggttgt 360  
tctacttata tgagtaatat attttatggt catgcaccct tgaagagtgg tctatttttg 420  
ttgaatctcg atagtagtga tacacatatt 450

<210> 6355  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-H9  
<400> 6355

gtctagaatt accgggtcga cgggagcgat tatgtgtgga catacacaga tgactgagga 60  
aattactaga gtcctgttg ctgatggtat gtccaaagat acaatcctaa caaacttctg 120  
agtttcacta gaacacgtat cttgcccttt tggctgttgt acacctacca gcacactcta 180  
gtggctcttg tttacagcaa atgtgatgcg acttagggtc gtgaaagaga tactgccacg 240  
tactaacaga ttacggcaat ccattttccc tcatgctgca tgttgcgcat caaccattgc 300  
atgttgatat cctgatatat taatctcaat gacagaacaa aatgcttggt ggtgccctga 360  
tacatcattc gcctgcaagg tgatgatgca ctcgaaaagc ccctttctag aaaagtataa 420  
cggggctcaa tatgggacat tg 442

<210> 6356  
<211> 300  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-A9  
<400> 6356

aattcccgcg tcgacgggcg gtaatagctc tccggcatga cgatgtgcat cctcaactgc 60  
gacaagaacc tgaccccgat gtgcaacaag atcttccacc tggggacctg catctgagac 120

gtacccttgc atgcaggcga tcgctcatgg gaatgccagc gctggcacat gcaacagcac 180  
 cgatatgcac agaattgagt ttgccattct gttctaacca ggatcattgc ccacaaatct 240  
 agaatgccat catgaccgga tccttttacg actttttccc gggcctgccc tttgttgagt 300

<210> 6357  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-C4  
 <400> 6357

tgttgttgat gttgttggtg ttgtcgttgt tgttgttggt gttgttggtg ttgttggtgt 60  
 tgttgttggt gttgttggtg ttgttggtgt tgttgttggt gttgttggtg ttgttggtgt 120  
 tgttgttggt gttgttggtg ttgttggtgt tgttgttggt gttgttggtg ttactgttgc 180  
 tgtcgctggt gctgtcgtg ttgctatcgc tgttgctggt actgttgctg ttgttggtgt 240  
 tgttgttggt gttgttggtg ttgttggtgt tgttgttggt gttgttggtg ttgttggtgt 300  
 tgttgttggt gttgttggtg ttgttggtgt tgttgttggt gttgttgctg ttgttggtgc 360  
 tgttgttggt gttgttggt 379

<210> 6358  
 <211> 109  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-D4  
 <400> 6358

aagtactaac atgttgcgac atcaagtttg gttgctatat aggttccagt catatatata 60  
 cgtgtatgcg acttcattac tctacgagtg tgtcacctag aatcactta 109

<210> 6359  
 <211> 491  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-059-Q1-E1-H3

<400> 6359

gggccggaat tctcgggtgg acgggcaaat gaagaaaaca tttatcttca atacatttgt 60

atcttgccag atcttcaacg agttcaatgc gcgtaagcct gaggaagga ,atgtcttcaa 120

aggagtaaca aagaatcagc tcttcatggg aatagtttgt gtaactaccg tgtttcagat 180

actaatagtt gaattcctgg gaaagttctt taaaattgtg agacttaact ggagtctatg 240

gttagtttca gttgccattg gcgtcgtaag ctggcctttg gcttatctag ggaaattcat 300

tccagttcct gtaagacctc tccaggccta tttcaagcct tgttggaat catcacgccg 360

agacgaagac gaagcgaggc agggctaaaa aggctgcaga tcanctagtg taaatagaca 420

cgggtcagcc gaagaacagg aacccgttac gcctctccca gtggaacaga gctgccgatt 480

acctctacta c 491

<210> 6360

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A8

<400> 6360

cgacgggcat caacggaagt ggtcccgatt attgtcactt cgggggttgcc ggatcataac 60

acatagtagg tgactataga cttgcaagat aggatcaaga actctcatat attcatgaaa 120

acataatagg ttcagatctg aaatcatggc actcggggccc tagtgacaag cattaagcat 180

agcaaagtca tagcaacatc aatctcagaa catagtggat actagggatc aaaccctaac 240

aaaactaact cgattacatg ataaatctca tccaacccat taccatccag caagcctaca 300

atggaattac tcacgcacga cagtgcagcat catgaaattg gtgatggagg atgggtgatg 360

atgacgatgg cgacagattc ccctctccga agccccgaac ggact 405

<210> 6361

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B10

<400> 6361

caggttacgg tagggaattc cggggtcgac ggggtgaatt ctgacccac aaatcactgt 60  
gagttgtgag agcttgtgat ctgcctttgt accgaaggaa cattcctctg tcgccataga 120  
tccggtagga ttgcctctcg cttcttcgga aatgaaattc gtgcgcagat catcgccgat 180  
gagatcagtg atccacactg gatgctgttc ttgtgtatgg attttatgga ggtttgggtt 240  
tttttcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa ttaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gacggggcta 360  
cccaatagga tcaaagttaa ctttgccggg aagggaatgt cacaccct 409

<210> 6362  
<211> 286  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-B11  
<400> 6362

cgacggagga ggaaagtgat cagataattt ttaggctgca ggtgttggtg agatgagctg 60  
ttgtgtgtta tgaataacaa acagattaaa caaaccaga atgacagtgg caagattact 120  
ttaaaaaaaaa aaaaaaaaga aaaaaaaaaa aaaaaaaaaa aaaaaaagga aaaagaagaa 180  
acaaaacaaa aaaaaaaaag cggccgctct aaaggatcaa agcttacgta cccgtgcatg 240  
caacgtcaaa gtcatcgat agtgtcacca aaattcaatt cacaga 286

<210> 6363  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-B6  
<400> 6363

cgacggggga ggatacgagg aatgatgaga cgaggaagga cgatattaag atgcataagg 60  
aggatcagac ggaggagact aacgatgaca ccacggagat taagccggag aacattaagg 120  
acacgactac tgagaagacc actaccaaga ctaatctgct tatcaatgat gataacaata 180  
ataatattca ctacgatgaa catgcacatc gaggaggata tttatgactg acgacatgac 240  
gatggaggat attccgatga tctcccctct cctcctctc tcccctttcg cggccgctct 300

atacgtcca cccttactta cccgtccate cgacttcata cctcttctat attgtccccc 360  
tccttcactt cactggccgt cctttttc 388

<210> 6364  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-B7  
  
<400> 6364

aggtaacggg acggagtcc gccgtcgacg ggctaccagc cgccgttgaa acgaggcgag 60  
catcgaggga accatggaga acgtcgggga agegatgtcg cgccatctgg ctcctcttg 120  
cgggtgggaga acgaatactc ctgtggctct ggctggctct gcacctcat gaacggcaca 180  
ccatactcga tcgattcggt atcctctggg tgcttgacct togacctgta cgtccccac 240  
ctccgcctga ctatcgctc ggggtgaatct gtctgctcca tcgcccatag gagatactcg 300  
atgaactcgg aggactgcaa cgtgactgcc gccgaggagt acatgtacat caccgcctct 360  
catcgccgcc atctcgtctt ttgcataca ttgccacatg gccgcgaccg 410

<210> 6365  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-C10  
  
<400> 6365

gaattccggg gtcgacgggt aatcaattta tggtatccag acaaaaaata cttcacacac 60  
ttttgtgttt tgtctaattg cagggtgatg agacatttgt acaattcaca tatgaagata 120  
aggaagaaag atatgtttat ttgctgtcca aaaagttctc tcatgtcact ttgggcccaa 180  
gagaagatag agtccaagtc tctcacgttc tggattcaga ttccggactgc acagacacac 240  
ctgactcaaa atgcacacaa gtttttcata cggactccga attgggtgat ttttttttg 300  
ttggaaacta gatttcgtgc actttccaac ccaattggaa tcaccttcaa attcgtccgg 360  
agcgttgagt tgtggacgaa acaatctgat gctgcagcaa aatccgag 408

<210> 6366

<211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-C12  
  
 <400> 6366  
  
 caggtaacgg tacggaattc ccgcgtcgac gggatcaaca tcctcctacg cctcccacgg 60  
 attgataaac cttagggtcat ccacttgacg gaaatttgct attgtcctac agacctctgc 120  
 atttgggggc ccatcaacgt ctacaagatt aacgttgtgt actacacatc aagcaatttc 180  
 tggcaccatt gccggggaag ttagtgcttg aaggtatatc ttacatcgt gcactcgaat 240  
 ctttgagttt cttgttttat caccagttaa gtcaataatt caactataaa atacggcact 300  
 aagggtgcct cttatgcttc atcttttact atcggtcatg aagatcatga ttccaataat 360  
 tgtgccaaag tgttatcaga agactgcatt aacatgtttg gaactaaatc tttgaatgat 420  
 gag 423

<210> 6367  
 <211> 117  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-C2  
  
 <400> 6367  
  
 tctcatcttt gcccgaac aaaaaaaaaac gtaccagtcg atctagatga tgaaaactaa 60  
 tctaggaatc catgccacct gatagctctt cgatacctcc cgtatgtcaa ttcaata 117

<210> 6368  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-C6  
  
 <400> 6368  
  
 caggttacgg tacggaattc ccgggtcgac gggatactta tgcgggatgc gattcctcat 60  
 gtaatagcta taacataggg tgacacagaa ctagctccag ttcataata taatgtaggc 120  
 atgtattccg aatatagtca tacgtgctta tgaaaaagaa cttgcatgac atgttttgtc 180



ctaccctccc gtggcagcgg ggtcctattg gaaactaagg gatattaagg cctcctttta 240  
atagagtacc ggaccaaagc attaacactt agtgaatata tgaactcctc aaactacggt 300  
catcaccgag agtgggtccc attattgtca attcgggggt gtcggatcat aacacataat 360  
aggttaactat agacttgcaa gataggatca agaactcaca tatattcatg aaaacataat 420  
aagtttaga 429

<210> 6369  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-D1  
<400> 6369

cggtagggaa ttcccggtc gacgggggaa cagcgatata gcgccatcga acctgtcggc 60  
aaagctgatc acgaagcggc tgtactcgga ggatgcggcg tggaagaact ggggtgtggca 120  
ctctgagggg gacctgatgc tcaacaactc cgtcttcgcc gacagctgtg gcccacacca 180  
gaggaagttc gataaggatg acctcatccc gcccaagccg ggatcgtacg tcaccaggct 240  
cacgcgcttc gccggctgca tgccgtgcaa gccctgcaag ccctgctaaa ccttggtggc 300  
cccgccggcc ggccggagcc gatcccttcc gaatcttcaa ttctatagct ttgttcaatt 360  
cttttactca aagattcgtg tatgtattac tacgacatt 399

<210> 6370  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-D10  
<400> 6370

gaattccggg gtcgacgggg agaaaggcat tggagatgga acggtcagct atggaatgga 60  
tgatgctgat gacatatata tgcggtcata gattggcatc attattggcc ctcacattac 120  
tgtccatgag ggtcgcactc accagctgaa gctgttctgt gacaaggact accctgagaa 180  
ggcaccatct gttacattcc attcaaaaat caacatgggt tgtgttactc acgagactgg 240  
ggcggttgac tcaattaagt tcagtttgct aacaaactgg caaccgtatt acactatgga 300

acatgtcttg acccagctga tgaacgatat tgcagcgacg cagaaccgca agctagtgc 360  
gcctccagaa gggacattct tctagcgggg tgtttgccgg cccatct 407

<210> 6371  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-D12  
  
<400> 6371

aggttacggt acggaattcc cgcgtcgacg ggtttgact ccttttgata tccttttcct 60  
tcgaaacact gaaataggca aaaaaacagc aatttgggct gggcctccgg ttaatagggt 120  
agtcccaaaa ataataaaa agtgatataat aaagcccatt aaacatcaa aacagaatat 180  
ataatagcat ggaacaatca aaaattatag atacgttga gacgtatcaa tggtcaccat 240  
cctctcctat ttctgtgggc aactgagtc tgatcttga gggttattta tggtggattg 300  
aatatatttg atttgagatc acttgatgca tgtctaattt gtggatatcc gtggtgacat 360  
tgaggtaatc taggtgacaa aagaattgaa cgatatgtat tatatggtat tgcgtagta 420  
cgatt 425

<210> 6372  
<211> 329  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-D6  
  
<400> 6372

tcgacgggag actaagggtca gatcccatct gcatcgtcca gtcttggaca gtcgtcgacg 60  
ctaattccaga cagggacaat gaactcaggt ggccatattg tgctatgctt cacgatatat 120  
ctggccgtca tgaggaaatt cttttgcac cacttttttt tgactttctc agcaatgccg 180  
ttgttcacac tctggttgat attacagtgt gacctgtgtg ttaagaaggg atgtttgtcg 240  
catctatagc ttccggaacc agctgctgta cattctttca tatgtcgttg accaatctgc 300  
tcaccgcagt ttgccattta caaatcata 329

<210> 6373

<211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-E11  
  
 <400> 6373  
  
 gaattccggc gtcgacgggg cacaactggc cggaggacct agtggtatag tttccttttt 60  
 agcaagggtta gtcattcttc catgaggaaa ttgtaagact tactatataa gttgttcctg 120  
 atgaatcctt tgagtagcca aagtccgacc ttgctcgaaa accatgtcaa tgctacctcg 180  
 aagcatgttt gtggactcc gatgatcaat agttacattt gaagcataac gcaaatgtt 240  
 ctttactaat taccctaaac accgtttgta tgggtaatga catgatattt ctctcacctt 300  
 tcctaaaggg ttttctacgt tataccttgt cgtagagata atgttctgct tgccttggg 360  
 aaggatatac ccctgaaata tgtgtttaaa cacattttcc 400

<210> 6374  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-F8  
  
 <400> 6374  
  
 caggttacgg cacggaattc cggggtcgac gggggagagg aaacactgct aatgtcatcc 60  
 gttacttccc aactcaggct ttgaactttg ctttcaagga ttacttcaag aggatgttca 120  
 actttaagaa ggacaaggat ggttactgga agtggttcgg tggcaacctt gcttctggtg 180  
 gtgccgctgg tgcttctcg ctgttctttg tgtactccct tgactatgct aggacaaggc 240  
 tggccaatga cgcaaaggca tccaagggtg gaggtgaaag gcaattcaat ggcttggtg 300  
 atgtctaccg caagactctc aagtcagatg gtattgctgg gctttaccgt ggattcaaca 360  
 tctcctgtgt tggaatcatt gtctaccgtg gtctgtac 398

<210> 6375  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-G11

<400> 6375

agggtaccgga atggaattcc ggggtcgacg ggaggtcatt gcttgtgcct aaccaactgt 60

tattttcttct acagagtgtg tgtataatct cacaaacgga ctgtacaaac agctttctcag 120

cacgaaccac accagtaagc acacaagtc c aactgatcat atttatataa aaacactata 180

atcggctgaa aatgacacca tgcattgcacg aatcctgggt tttattttat cacttattaa 240

aaacatgtag tactcctagt aacctatgat ttggaccagt ctatggatct caggaggaat 300

ttaattgggt aacaacagaa cataggacca aagaccacca gaaaataatg caaagcgaca 360

ttaacgacag agacagtagt gcatgcccta atagtatttt tttttgcatg caaatcagct 420

gggcccc 427

<210> 6376

<211> 393

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-061-Q1-E1-A12

<400> 6376

cgggtcgacc gggaggttga gaagctgatt ggcaggatag tgaagtggct gaagccccgt 60

gggcatattt tcatcaggga gtcctgcttc caccagtctg gggattccaa gaggaaagtg 120

aacccgacgc actaccgga gccaaaggtt tacaccaagg tgtttaagga atgccactcc 180

tatgaccaag atgggaattc ctttgagctt tctctggtta cttccaagtg cattggagct 240

tatgtgaaga gcanaaaaac cagaaccaga tatgttggt atgggagaag gtcaagtgca 300

cagaagacaa aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatcc 360

tgcgttatga gcgcgtgttt ggggaaggtt atg 393

<210> 6377

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E5

<400> 6377

gacgggatat aactgataat atcgatatag gttattctac aagattactc tataaaaaaa 60

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaag aaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa ggggcccgc aaaggatcc aagcttactt acccgtgcat 180  
 gcaacgtcaa agctcttcaa aattgtcacc aaaattcaat t 221

<210> 6378  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-061-Q1-E1-F1  
 <400> 6378

tcccggtctg acgggagatt acccgacccc gctgcgttcg tcaaaccaaa ggcccctgac 60  
 ggacgcctg agatcaggcc tcttgacatg ccaaagcgcc ctgctcgcaa ccgcaggctg 120  
 ccagctctta gggctgcatt ccaggagaca accatctcgc ccgctaattt ggtgctccca 180  
 ttgttcatcc atgaagggga agaggatgct ccaattggcg ctatgcccggt gtgctttagg 240  
 cttggatggc aacatgggct tcttgatgag gtgtataagg cacgtgatgt tgggtgtaac 300  
 agctttgtgc tctttccaaa agttccggat gcattgaagt ctccaacagg agttgaagca 360  
 tacaatgaca atggtttggt tccacngaca attcgctcgc tcaaagataa gttccctgat 420  
 atcattgtct acacgg 436

<210> 6379  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-H1  
 <400> 6379

cccggtcga cggggatcta cggtgatagg atcacgacga gaacgactac ttcaaccctg 60  
 ttcttttgaa cgcttccgct cgcatctac aaagtggat gtagatgcat ctcccatgac 120  
 tcgttgctta gatgaactca tagatggatc ttggtgaaac cgtagaattt tttttaattt 180  
 tctgcaacat tccccaacag cttaaccccc acatggtcaa cacggatcat gacgcatgtg 240  
 ttgtgtgacc atgatagcta tttccctagc aagctatata tatatatatt ctccactagt 300

tccattcagt atgtggacat gaattgaatc aatgatgcac cctcctgacc actgaagcta 360  
agaataggag cagaagttag agcgagaaag a 391

<210> 6380  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-061-Q1-E1-H2  
  
<400> 6380

gaattccggg gtcgatgata cagaaggaag aactgcagct agcattattc ataactccta 60  
gcgggcaaaa tctttttatt gacagggttt ttgatttggt tgatgaaaag aagaatggag 120  
taatagagtt tgatgagttt attcatgctc tcagtgtctt ccatccatgt tcacctgtgg 180  
aggataagat taattttgca tttaagctgt atgatttgag gcaaaccgga tttattgagc 240  
gtgaagaggt tatgcaaag gttattgcca ttttgaatga atctgatatg aaattgtctg 300  
acgagcttct tgaggccatc atagataagg gacatcacia catcttttcc tagttttgtc 360  
ttcaacacgg cagttgaaga ctaaatagtg caagaattct aaaatgacgg caacaagttg 420  
gaagcatatt atgtctgtca gct 443

<210> 6381  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-061-Q1-E1-H7  
  
<400> 6381

gaattccggg gtcgacgggg aatgcgggta cattgctgct aatctttatg ccaagagtgt 60  
gttcggagaa gatgcttttg tgaacatcag cattgagaag caagtcgatg gcaagcttag 120  
tggttacatc agaataagga gtaagacaca aggaatcgcg ctgagcttgg gagataagat 180  
taccctcaag cagaagggag gcagtttaatt ctgatgttgc ctgctcacia acaccggatt 240  
gtatgacatg tttccttcaa gagatccact tgccagtgtc atactacagg cacaatggga 300  
ttgattgaat taactacagg aagtttttgt gtacagaata tcaaagagaa gaatgataaa 360  
agaagaggat cgtaggggaag tcagtcttgg gagctgaaaa acgatcttga cacttccttt 420

cgcgataggt gtttattga

439

<210> 6382

<211> 138

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A12

<400> 6382

tagtgagtcg tattagatgc tccaggcatc tgtgggcggg ttcgtctctt ccagctgcgt 60

ctcttgcggt gattgacttg cattcctgag tctgtgtgct ctgtggtcgg gctagggaga 120

taccggcggt tcccgtc 138

<210> 6383

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A7

<400> 6383

ggtacaggtc tagaattccc gggccgacgg gacaacaaat ccccatggt tacctgctcg 60

tcctcatgtc tgcataata cctccccatt tttactcaag cagaagcatc ggcttctact 120

agttggaaca gtctaccgca catttaaata tgtgggcaat gaagaaaaag gggaaatatt 180

tctgagagac agtagatgat catcaaaaga atgtgaaatg tataagagaa ttagaggcac 240

cggaagaac tgcacgttg ctatgtagac catgcatcaa gctcaatttt atcattcaca 300

atggactccc ttacctgcc actagtgtca ttctttttt tcggaaaaac ttccaatcta 360

ttcatcttca atcatggcag tacaacgaat gccagaaata aaaattaca 409

<210> 6384

<211> 428

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-062-Q1-E1-B10

<400> 6384

aggtacaggc caggaattcc ngggccgacg ggggctactg agcgaggcac ggagacacaa 60

ttgagatgaa ccaattgaca gattgcgatc agattgagtt atcacccttc tactgtcatt 120  
gttgggtggg gggaagggg agggagagaa aggcgtatcg agagtgtgcg cagtaggcat 180  
agaggcacaa ctacgcactg tgtgtgtatg tgtgtgtgtg tttgaaagag gagtagatag 240  
attactatca agatcgaggt gccaccctac tccttcggtg tcaggtaatg tgtgtgtgtt 300  
tgagagagaa gccatgtcga tagattagta tcaagatcga ggtgtcgccc tactccttcg 360  
gtgttgggaa gtgtgtgtgt gtggttgtgt gtgtcggggg gaagggggca gtgacactta 420  
catatctc 428

<210> 6385  
<211> 291  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-062-Q1-E1-B11  
<400> 6385

gaattcccgg gtcgacggg aatgaatgat aatatcgata taggttattc tacaagatta 60  
ctctatagat ccatcagctc taagtaaact gcgtataaat catgtatgta taaggatatgt 120  
gttactgatg ttagaagttg attcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagaaaaa 180  
acaaaagaat ataaaaaaaa aataaacgtg taaacaaaag aatatatctt tacaatcgtg 240  
tctaaaagtc acatcacagt gcgtctcttt aaaaaacatt gagtgtgaaa a 291

<210> 6386  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-062-Q1-E1-B3  
<400> 6386

tgcttcaatt tcagtttggg tcagagtcag gtcctggatg ttgtcaagtt tgtttactta 60  
tgggcacttg tgtattgggt tattgctggg cattatgcct tgatattaaa gatttccgcc 120  
cagtacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaggc aaaaaaacia aacaaaaaaa aaaaaaaaaa gcggcgggccc 240  
aaaaggatcc aagcttactt acccttgcag gcaacttaaa agctcttcaa aagtggtccc 300



aaaatcaaat tcaagggccg tcttttaaaa acttcttaac tgg

343

<210> 6387

<211> 466

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-062-Q1-E1-B4

<400> 6387

ggtctagaaa tncgggtcg accggatata gtaggtttta cgccaatata aataaagaat 60

gagttcatta cagtacctta tgtgggtggtt ttgctttctt tcactaatgg agcttatgag 120

atttcctggt gagttttctg ttgtgaagtt ttcaagtttt gggtaaagat ttgatgcact 180

atggaataag gagtggcaag agcctaagct tggggattcc catggcacc gaagatattc 240

aagagtacac aaaagcctaa gcttggagat gccccggaa ggcatcccct ctttcgtctt 300

cgttcattgg taactttact tggagctata tttttattcg ccacatgata tgtgttttgc 360

ttggagcgtc gtgtatgata ttagtatttg atgtttagtt ttccacaatc gtactttctg 420

tacacacctt ttgggagaag acatttgatt gaaatttatt agaata 466

<210> 6388

<211> 371

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B6

<400> 6388

caggtaccag tctagaattc ccgggccgac gggatggctt aaaaggaagc gctgccaggg 60

aaacaacccg gaagtttttag agagtcattt atttctgttg tctgctttta tatagtttaa 120

aaacaaaaaa ataaggaggg gaacccaaaa ctttttcaaa aagaaaagtg aaagtgagat 180

agacgagcat tgtgaaagtg ggggacgtcc ttgaactttg ttcatgcca tggaaacttt 240

gtgaatctta attacagaaa cttttcaaaa aaaataatta tccccttgta caattccatt 300

gtattataaa aataatgtgc caagggttgc ctttaggatg ttacaatgc ttgttgggtt 360

gtgccggtgt a 371

<210> 6389  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-062-Q1-E1-B7  
  
 <400> 6389

ccgggccgac ggggtggcggg aaacctgccc aggagctgca agacaaggag caggcccagag 60  
 tgccggatga tgccggcgga aaggtctgag ccaagcaagc agtgatcggc gatgggacag 120  
 aaaagattgt gtcaggacat actactgggt ccagactgtg ttggaatgca acgcatgcac 180  
 cgtgaactgg cggcaggcca ggacgataag atgggcagtg cgccattgct gtacccactt 240  
 tctgcctgat ggtttccttt caagtagcta gtaccagacg tctcccggtg atgttgtatg 300  
 taccgaatta ataaaacaag tttcagatgc ttttagtgag ctctatgtg ggtggcttca 360  
 gcacgcacca naggacaatt ttacatttaa ataaaaaaaa gcggccgctc tacaggatcc 420  
 aagctta 427

<210> 6390  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-062-Q1-E1-B8  
  
 <400> 6390

gtaccagtca ggaattccgg tcgacgggag aggccaggag atgatcagga agcgtcaagg 60  
 acgaccaacg ttcgcaaggt cgacgtaacg gacgaacccg tgcaaacgac ctgaaccgga 120  
 atgcccgatc gatttcgccc aggacgacga cctcgccgctc gacgacttca aggaggcgga 180  
 cgatcaacac gatccacgct tacctacgca tccacagcga catgatacct ctgcaaagtt 240  
 gccaccgtgg atcaactcat cggccgctgt cttcacgtgt cggcacagag aatcccccggt 300  
 cgtgtgccaa cttactcccc tatcatcaca tcctcctggc 340

<210> 6391  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B9

<400> 6391

cccggtcga cgggaggagg ccataggagc cacgaggagg ccacaagcca ggaggacgca 60  
ccctaggagg ggcacctcca gggcttattg gccccctgga gcacctccaa ccctaattctc 120  
tgatctattg atttggtttg gccacctaga ttgatttttc ttagaatgag agagggtgcct 180  
tgtttttaggt tcaatcttgc ggtgtcctca cccaatgaca gaagggtagc gaggcattgca 240  
tttgatttgg tgccattaag gataaaaaga tgggtttttt gcaatattga ttggatctat 300  
ctccctacat catgtcatct tggttaaggc gttactccgt tcttggttaac ttaatacact 360  
agatgcatgc tggatagcgg tcgatgtgtg gagtaatagt agtagatgc 409

<210> 6392

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C10

<400> 6392

ggtacaggtc aggaattccc gggccgacgg gtaaaattat actctagtgc ttcacttata 60  
tcttttagag catggtggtg gatttgtttt atagaaacta ttgatctctc atgcttcact 120  
tatattattt tgagagtctt aaatagcatg gtaattttct tagaatccta atatgcttgg 180  
tatgcaagat taataataaa aatcctctta tgagtgtggt caatactatg ataagtttga 240  
tacttgataa ttgttttgag acatggagat ggtgatatta aagtcattgc agttgagtag 300  
ttgtaatttg agaaataact gtgttgagc ttgtgattcc cgtagcatgc acgtatggtg 360  
aaccgttatg tgatgaagtc ggagcatgat ttattttattg attgtcttcc ttatgaatgg 420  
cggtcgggga cgagcgatgg tcttttccta caaatctatc ccc 463

<210> 6393

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D12

<400> 6393

ggtacaggtc aggaatgccc gggccgacgg gatacatcaa ttttgaaaaa aaaatcatcg 60  
 gttttgaaaa gagttcattg attttgaaaa acagttcatc gattttgaaa agagtttttc 120  
 aattttgaaa agagttcatc gattccgaaa agagttcatc gattttgaga aacaaagttc 180  
 atcaattttg aaaaagagtt catcgatttg aaaaatagtt cattgatttt gaaaaaagtt 240  
 cgtcgatttt taaaaaagtt catcgatttt gaaaaaaagt tcgtcgattt ggagaaaaaa 300  
 atattttctt tgtaaaagag ttcatcaatt ttgaaaaaat agttcacgaa ttttaaaag 360  
 ttcattggat tttgataaaa aaaaattcag caaattgaaa gagttcacgt atttaac 417

<210> 6394  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-062-Q1-E1-D6  
 <400> 6394

ggtaccagtc aggaatgccc gggccgacgg gatcataaaa agccttgcaa gcaaagtgac 60  
 taatgagtta gttgcaagat gatgtattac ggaatgagta aagagacttg tcagtaatga 120  
 gattgaacta ggtatgaaga tactgtgaca ccctcgattc aatcatacac taaccataca 180  
 cgcaaagtgt tacgatcaag atcaaggact cacgggaaga tatcacaaca caactctaga 240  
 cacaaaataa aataatacaa gctttatatt acaatccagg ggcctcgagg gctcgaatac 300  
 ataagctcga atacacaaga gtcagcggaa gcaacaatat ctgagtacag acatgagtta 360  
 gacaagtttg ccttaagaag gctagcacia aagcaacaac gatcgaaaag gcaaggcctc 420  
 ctgcctggga gcctcctaac tactcctggt 450

<210> 6395  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-062-Q1-E1-D7  
 <400> 6395

aatgcccggg ccgacgggtt acagtaagaa ttgtgcaagt gtttggcgag gagtatttga 60  
 gatctccac tgctgaagac accgcaaggc tattggcgat gaacaaagcg cgcgactttt 120

ctggcatgct tggctcaata gattgcatgc attggagttg gaagaattgt ccaaaggcat 180  
ggcatgggca attccacggc caaaaagagg gttccactat aatccttgaa gcggtggccg 240  
attaggagac ttggatttgg catgcattct ttggaatgcc tggatctttg actgacatta 300  
atgttgtcaa ccggtcacca ctgatgaata agattgcaaa cggtgagttt ccaccgggtgc 360  
agtttgtagc aaatggtcgt acgtacaact atggctatta tctagcggat ggcattctatc 420  
caaaatggca aacct 435

<210> 6396  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D8

<400> 6396

ggtactagtc aggaattccc gggccgacgg gtccatggaa tgtactacct ccgtatcaaa 60  
atagaatata tttttgtagg ctaaactagc attcaacaac gttttacttt ttgctacgga 120  
ggtaatatcc gattatcagc tcaactcgtca gcgcgcaacg attttgatca tccccctct 180  
tgcaacttgc taccgcatag tatatataga gatactgtac aagacaatat cacaaccgcc 240  
tttcatgggtg tgagtaaacy ctttctcttc tcttttatca aaacattgga cattcactca 300  
tgtccatttg tgtccccctc tccccctctt tgtttttctg tttttttggt ggagagagtt 360  
tccgcctat tgtgtttaga gcaacgttct tacatctgca acctccaaag cgtttttgtt 420  
ttggaggatg ctctattctc tttgttt 447

<210> 6397  
<211> 337  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E12

<400> 6397

aattcccggg ccgacgggtc cgataaagct atacacattc gcgtaggagt atgtgctttg 60  
ttgtgggcaa tttggaactg cagaaatgat ttggctttta acacaacagc aactattcat 120  
tttttgcagg ttttattccg agctactgcg ctgatccgta tgtggtcggt actcactccg 180

gcggaggcca gggagcggtt ggttaccgga tctgtccggt gggagatggt agctcgggat 240  
atcttcaact ggtttgatgg cggatcatgta ataggatatg tgattaatctt acctatcttt 300  
cttttgccag ccggtggtgg cttatgggccc tttagtt 337

<210> 6398  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-062-Q1-E1-F11  
<400> 6398

aggtacaggt caggaatgcc cgggccgacg gggaggttga gaagctgatt ggcaggatag 60  
tgaagtggct gaagcccggt gggcatatct tcatcagga atcgtgcttc caccagtctg 120  
gggattccaa gaggaagtg aaccgacgc gctaccggga gccgaggttc tacaccaagg 180  
tgtttaagga atgccactcc tatgaccaag aggggaattc ctttgagctt tctctggtaa 240  
cttccaagtg cattggagct tatgtgaaaa gcaagaagaa ccagaaccag atatgttggc 300  
tgtgggagaa ggtcaagtgc acagaagaca aaggctttca gagattcctg gacaatgtgc 360  
agtacaaatc cactggaatc ttgcgttatg agcgcgtggt tggggagggt tatgttagca 420  
ccggtggatt cgagaccaca aaggaatttg tggac 455

<210> 6399  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-062-Q1-E1-F6  
<400> 6399

aattcccggg ccgacgggac acccaatagt ccaggactcc ctcagtgggc atatcttttg 60  
tagaaagaat taaactctct tgcttcactt atatctatct agagagatga caggaattgg 120  
tcattcacgt ggttagtcat aaaatcctac ataaacttat agatcgctga atatgatatg 180  
tttgattcct tgcaatagtt ttgcgatata aaggtggtta tattagagtc atgctagtgg 240  
gtggttgtgg attgtagaga cacttgtggt gaggtttgca agttccgtag catgcacgta 300  
tggttaaccgt tgtgtgacaa atttgaagca tggggtgttt ctttgattgt cttccttatg 360

agtggcggtc ggggacaagc gatggtcttt tcctaccaat ctatccccct aggggcatgc 420  
gtagtattac tttgttttga gggctaataa gcttttgc 458

<210> 6400  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F7

<400> 6400

ggtactagtc tagaattccc gggtcgacgg ggatgatggc ggagttgtca atgttactcc 60  
ggaggaaatg agagccatga tcgaagttat agctgagacg gggaagttct ggcacgactg 120  
gagttttctc aagagattgt tgtctctcca attgatgcag gtcttgggtg aatattctga 180  
ggctcaaatg gtgatccgag aggacgggca gcaacagaat tccttgttta gagagacaca 240  
ctcagagctg tttagccagc tcaatgatgc tctcttgagg tttgaagagg gtcctccggt 300  
tacacttcaa aggctttgtg agattttggt ggattcaaaa ggaacataca caaaattgtc 360  
gaagcttgct ttggccttgg agaag 385

<210> 6401  
<211> 395  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F8

<400> 6401

aattccccggg tcgacgggat gcaggagttc ttcgtccact tccacggacc caaagacagt 60  
atttaccagg gtggtgtgtg gaaggtgagg gttgaactca cagaagctta cccctacaaa 120  
tccccttcca ttggcttcac caacaagatc tatcacccca atgtcgatga gatgtccggt 180  
tctgtctgct tggatgtgat caaccagacc tggagcccaa tgttcgacct tgtggatata 240  
tttgaggtgt tcctgcccc a gtttctctg taccggaacc cctcggaccc cttgaacggc 300  
gaggcggcat cgctgatgat gcgcgacaag aatgcctatg aaaataaagt caaagaatat 360  
tgtgagagat atgccaagcc tgaagacata tcccc 395

<210> 6402  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-G9

<400> 6402

```

aggtacaggt caggaattcc cgggccgaca gaatgagcct tcaggatgga aacacctcct   60
gtcttgccac ttgcagcaca gctgacatcg acgatgatcc atttagagcc tcatattcgt  120
atgatgctga agaagacatt ggggatgaag agtctggtgc cttcacttct tgtggttgaa  180
cacggtggtt tagagctcct gaactcctat atgggtcaac cagctacggc caagagatcg  240
acctgtggtc actaggatgc attttggctg agcttcttag tttagagccc atattcccag  300
gccaatctga tattgaccag attggtagaa tcatcggagt cctgggcaat atcacagaag  360
agtcctttcc tggtgttca aatttaccg attacaacaa gatctttttc agcaagggtg  420
agaagcctac gggcctcgaa gcataccttc ctaaca                                456
  
```

<210> 6403  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H11

<400> 6403

```

aggtacaggt ctagaattcc cgggtcgacg gccttcctat tttggtagga tttttacagt   60
tccataagca ttcaagagtt acagattgct gcaggctgtt ctgtttttga cagattctgt  120
ttttcatgtg ttgtttgctt attctgatgc atttatggct agtatgtagg gtatgaacca  180
tagagaagtt ggaatacagt aggtttaaca ccaatataaa taaataatga gttcattaca  240
gtaccttatg tgggtgtttt tctttcttgc accaatggag cttatgagat ttctgttga  300
gttttgtgtt gtaaagtttt caagttttgg gtaaagattt gatggactat ggaataagga  360
gtggcaagag cctaaattgg ggatgcccaa tggcacccaa gatata                                405
  
```

<210> 6404  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-062-Q1-E1-H7

<400> 6404

aggtaccagt ctagaattcc cgggccgacg ggcttcttag agcaatttga cacaagaaa 60  
aatgtcacg gagattgttg ctcgacaac ttctcggcg aggaatgcaa cgcaaagagc 120  
caaatcgggtg ggggtgttga cgctcttctg gtcactgatg acctgttgat gaggagggca 180  
tatttttagga agcagcagct tgacaacaaa acaacatcac ctaactctaa ctgaagagga 240  
cagccgggtgt gatttgctct tacattgata tcgcatgcgt atgaataatg gtccaatgga 300  
attgggagcg gagtaagaag ctcatgttgc ctttatgcat gtaataatca tgctgcctg 360  
catggcccg ctagctgttg tccaatgcct ggctgcctgc ctgaactggc gtcaatttcc 420  
agtttgtttt tgtaatatat aataact 447

<210> 6405

<211> 365

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H9

<400> 6405

gggtacaggtc taggaattcc gggccgacgg gagagctaag agacagtact ccgaaaatct 60  
caaattgtaa ctgcaagtgt gaattacctc tgctctgttt ctgtgtgttg tactcctcca 120  
aagatcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaacaaaaa aaaaaaaaaa aaaaacaaaa aaaaaagtaa 240  
aaaaaaatca aataaaaaaga aagaagaaaa aaaaatataa gattgaaaaa aaaaaaaaaa 300  
caacgaaaaa aaaaacaaaa tgcaacaaaa aaaaaattta gaaatcaaaa agtaatatta 360  
agaaa 365

<210> 6406

<211> 387

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-063-Q1-E1-A1

<400> 6406

ggtagcgggc aggaattcnc gggtagacgg gaggacaaca tcgattcatc tggtatatga 60  
tgccggtagct gaaccctttt tcctctgcat gaactgtcat tgccacagtc catagatgag 120  
accactagc atgaatatga gttgtttgac cctgatgtg cctacgcaat catgcgtgta 180  
tgtcatggct gctactgctt agagttgagt cagggtctgat tcatcgagga tgaattggga 240  
aagtggtaaa catgtcctac tgggattgag ctactgtgt aaacactagt tggtagatgt 300  
atccatgaga cgccatgtac gactacatgg aggggtgttt cattagcatc atccttaagc 360  
actaagatct gtatgtatgc tttaaga 387

<210> 6407

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A10

<400> 6407

ggtagcgggc aggaattccc gggtagacct cctcaaccgg aacaacacct tcaagccctt 60  
cgccgaatac aagtcggact acgtgtacca gcccttcccc aagcccggtg gggagcagat 120  
cttcggctgg ctacgaagc ccggtggggg gatgatgatc atggacccat acggcgccac 180  
catcagcgcc acccccgaag cggcgacgcc gttccctcac cgccagggcg ttctcttcaa 240  
catccagtac gtcaactact ggttcgccga ggcagccgcc gccgcgccgc tgcagtggag 300  
caaggacatg tacaatttca tggagccgta cgtgagcaag aaccacaggc aggcgtacgc 360  
caaccacagg gacattgacc tcggcaggaa cgaggtgggtg aacgacatct caacctatag 420  
cagcggcaag gtttggggcg agaagtactt caagggcaac t 461

<210> 6408

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A6

<400> 6408

ggtagcgggc tagaattccc gggtagacgg gcttcttaga gcaatttgac acaaagaaaa 60

aaatgtcacg gagattgttg ctccgacaac ttctcgggcg aggaatgcaa cgcaaagagc 120  
 caaatcgggtg ggggtgttga cgctcttcgt gtcactgatg acctgttgat gaggagggca 180  
 tatttttagga agcagcagct tgacaacaaa acaacatcac ctaactctaa ctgaagagga 240  
 cagccgggtg gatttgctct tacattgata tcgcatgcgt atgaataatg gtccaatgga 300  
 attgggagcg gagtaagaag ctcatgttgc ctttatgcat gtaataatca tgccctgcctg 360  
 catggcccgct tagctgttgg tccaatgcct ggctgcctgc ctgaactggc gtcaatttcc 420  
 agtttggttt tgtaatatat aataactctt ctgtattgtg c 461

<210> 6409

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-B10

<400> 6409

ggtataggtc aggaagtccc gggtcgacgg ggaggttgag aagctgattg gcaggatagt 60  
 gaagtggctg aagcccgggtg ggcatatatt catcagggaa tcgtgcttcc accagtctgg 120  
 ggattccaag aggaaagtga acccgacgca ctaccgggag ccgaggttct gcaccaaggt 180  
 gtttaaggaa tgccactcct atgaccaata ggggaattcc tttgagcttt ctctggtaac 240  
 ttccaagtgc attggagctt atgtgaaaag caagaagaac cagaaccaga tatgttggct 300  
 gtgggagaag gtcaagtgca cagaagacaa atgctttcag atgttctctg acaatgtgca 360  
 gtacaaatcc actggaatct tgcgttatga gcgcgtgttt ggggaggggt atgttagcac 420  
 cgggtggattc gagaccacaa atgagtttgt ggacaagctg 460

<210> 6410

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-B11

<400> 6410

ggtcaggaat tcccgggccg acggggctgt acaatggcaa gttcagcttc gactgcttca 60  
 cccacagaaa ggcagtgtg atccgcgggt tcggtggcga ggcgaacgca aggtaccac 120

cctacacggc agagaaacag aggatcttga ggggcctcat caagggcagc ttctttgcgc 180  
 tgatccttgc gtccttgggg ttcccaaggg agaagcgta gctgagttga gttccctccc 240  
 ttctccagta cagcatagca ggattgttca tgttcatgag ggtgatgtgc aggactggtg 300  
 atgtggtgca cttctgcact gtgaagcgcc agtgcgcgag tgtgttcaac aggtgtaaaa 360  
 tatgggacta tcatcggatt tctggatgta atttaatttt acataaataa acctggtttg 420  
 ctacttaaaa aagaaaa 437

<210> 6411  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-B12

<400> 6411  
 ggtataggtc aggaagtccc gggtcgacgg gaaagggcac tcggcggttc aagcggatct 60  
 acaacgggta cgcattattg tctaacacgg ggaagagggc catgtacgat tcctggctcg 120  
 ctgcttgctt atacgactac aaccaggatt tctcgaacct catgcatgag atgctgtcga 180  
 tgatatatac cgtgacgaac gattcgtcgg acacgcttca ggacctggaa acaatgctgc 240  
 atgagataat caaaggcaag gggcgtagct gatccactgc ttctgctagt tctaccgcaa 300  
 ggagtcgtag aagttgcagt ggtccagtga atcgaaatgt accagtattt gtcatgtcgc 360  
 accgtatccg gaaccgtca 379

<210> 6412  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-B2

<400> 6412  
 cgggtcgacc catacaattg caataatgtc atgaccgcga tcattctact tacacgcaat 60  
 cgcaaaatgg agttgacttt catggcgctg cactcggcta tacaggccaa tgtgtatgtc 120  
 aaccttgatt tcatatcttc caatgccact aggacgggca ccatctacta tgtttatggg 180  
 gaaatcacgg cacaccatca actctataac ggtcagagtg ttttgctctt ttctcgcgga 240



caagtttgca caatgtttca gtacctctaa ttgctgggaa tgccaggaat tttgtgattg 420  
atcacagcag ttcacatgtc gcgttttctg atgccagtta tgtctcagat tcct 474

<210> 6415  
<211> 320  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-063-Q1-E1-B8  
  
<400> 6415

aggtacaggt caggaattcc cgggtcgacg ggcacattca cgactaacgg ttctaggata 60  
gagactgcct caagtgccat ctagttgcaa gtgtcacact atgctcgca atgagaattc 120  
gatctatgga gtgctccaca gcaggtcgca attttaggat ctcttcatga ggagaggtac 180  
cttcacaac atcttgaag gcactctcac cgctttcaag accggcagga ctattgcaaa 240  
tgataatgct attgatttct cgagcccatt tgctgacgct attgagcaat tttttggatg 300  
ccacatgaca atcaaaccaa 320

<210> 6416  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-063-Q1-E1-B9  
  
<400> 6416

gtcaggagtt cccgggtcga cgggcatata aaatttccta ttgacttttg tgttgtgaac 60  
ttttcatgtt ttgggtaaag cttttatgga ctatggaata aggagtggca agagcctaag 120  
cttggggatg cccatggcac cccaagatat tcaaggatag ccaaaagcct aagcttgggg 180  
atgccccagg aaggcatccc ctcttttgtc ttcgttcaat ggtaacttta catgcagcta 240  
tatttttatt caccacatga tatgtgttat gcttggagcg tcgtgtatta tattattctt 300  
tgctttttat tttaccacaa tcctccttgc tgtacacaac ttttgggaga agcctaattg 360  
attaatgttt gctagaacac totatgtgct tcatatatat cttttgagct tgatactttt 420  
tgctcganta cttcacttat atc 443

<210> 6417  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-063-Q1-E1-C1

<400> 6417

ggctctagaat taccgggccg acgggataga ttatacctgc ctcaaggagc tttagtatct 60  
 cctttcttac cacttctttc attttagggt tcagccatcg tcgatgatca caaactagtt 120  
 tagcatcttc ttccaaatta attttatggt gacataaagt gggactaatg cccttaagat 180  
 catcaagagt atacccaata acaacacggt gcttcttcac agttttcaat aatctctctt 240  
 cctcatgctc taaaagggtta gcactaataa taacatggta tatctttttc tcatcaaaat 300  
 aagcatatctt aagagtatca ggcaacggtt taagctcaaa cacgggatca cccttgggtg 360  
 gangaggatc ccctaagggt tcaacaggca aattgtgttt cagaataggt tcctgtttta 420  
 agaatac 427

<210> 6418  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-C10

<400> 6418

aggatataggc caggaagtcc cgggtcgaca ggctttgggc gtctcttgta catggatgta 60  
 gtagttatga tccttatgaa ctcatgggtc atcagtgtaa agttcaggat atgtatgtcc 120  
 ctgttcttgt agatttatac atattgttgt atagaaagaa agcaagactc ggaaacgtga 180  
 actaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaga ataaaagaag aagaaaacaa taaagaaaca tcaaaagcac 300  
 ttcgaataat gtcaacgaaa ttcgaattaa ttgaccgtca tttaaaagat tagctaattg 360  
 gaaaacgctg ccgttacgcg aaacaacgag cggtgcaaca aagcctcctt ttacaagaag 420

<210> 6419  
 <211> 447  
 <212> DNA

<213>      Triticum aestivum  
<223>      Clone ID: LIB104-063-Q1-E1-C11  
<400>      6419

ggtcaggaat tccccgggtcg acgtcggcgt catggaggca gctctgcctc ggcttcagct    60  
gctaagtcct tgagggtggt gcggttgccg ttgcattgga cgacgacgtc aggggtaccgg    120  
ctccggcgtg atggaggagg gcggcgggtg attgggcgcg acggcgatgg agacaccgac    180  
gaggacgacg agctgccgtc gttcgacacc cacatgacca tcctcggcca ctgagaggag    240  
ccaagcctga cttctagcgc atggtttag tagtctcttg catttgcggt gcttgtgtag    300  
ttgtgttgct gccagaaga aacagtctgg caaacataa aagaagaaga agaagaaaac    360  
agaatcagga aagagatgag agagcgagcg tgtcacgatg atccccgcta gctgatgacg    420  
aaatttgccg gttgctcttg tttcttg    447

<210>      6420  
<211>      323  
<212>      DNA  
<213>      Triticum aestivum  
<223>      Clone ID: LIB104-063-Q1-E1-C12  
<400>      6420

gtcaggaagt cccgggtcga cgggggtaccc taacgtgact caaagaacct gtaccatagt    60  
ggacgcgat cgaagtaact agatcttgca cctatcctgc catgcggtct cggcatccac    120  
gattttatat gtgtgtcccc agtgaatttg cgtcaatagg ggaatatctt gctgtctgca    180  
cttcaggaca gatcttgcta acgcccgcta catcgatgac attttcaaag gtcgactatt    240  
gctggctgag ccattcaagg tccgacttcg ggagtcggac atggcaataa tgttcctcat    300  
gctacacaca tccacgctag acg    323

<210>      6421  
<211>      446  
<212>      DNA  
<213>      Triticum aestivum  
<223>      Clone ID: LIB104-063-Q1-E1-C3  
<400>      6421



```

gggtcgacgg gggtgttatt ctagtatgaa ttctagggca gtttgtgaca cttataggaa 60
tagcccaacg gattgactgg aaagaacact actaggaaaa gggctataga tggaattgac 120
actaatggcg caccagacat gtgggtgcacc attactatat actaatggcg caccatgtgt 180
tgggtgctcca ttagtgtgca aataactaat ggcgcaccacg tccacgggtgc gccattagta 240
atTTTTTTTT atTTTTTcaa aattactaat ggcgccacgt ggacgtgggtg cgccattagt 300
atTtgcacac taatggagca ccaacacatg gtgcgccatt agtatatagt aatgggtgcac 360
cacatgtctg gtgcgccatt agtgtcaatt ccatctatag cccTTTTcct agtagtgttc 420
tttccagtca atccgttggg ctattc 446

```

```

<210>      6422
<211>      466
<212>      DNA
<213>      Triticum aestivum

<223>      unsure at all n locations
<223>      Clone ID: LIB104-063-Q1-E1-C4

<400>      6422

```

```

ggtcaagaat acnccgggtcg acgttagtgt tgctgttggc acttccaagg gtcttgtggt 60
gccggttatc cgagatgctg atacaatgaa ctttgctgac atcgagaaag ggataaacia 120
ccttgcaaag aaggctactg agggggcgct gtcaattgac gagatggcgg gaggaacatt 180
caccatctcc aacggtggtg tctacggaag ccttattagc acgcccata tcaaccccc 240
acagtcagcg attcttggga tgcactccat cgtgcaacgc cccgtgggtcg tggacggcag 300
catcctcgcc aggcccatga tgtacctcgc gctgacatac caacacaggc tgatcgacgg 360
cagagaagcc gtctacttcc tgcgccgcat caaggacgtc gtcgaggacc cccggaggct 420
gctccttgac atataagccc catgcgcccg atctcctttg ctgcca 466

```

```

<210>      6423
<211>      446
<212>      DNA
<213>      Triticum aestivum

<223>      Clone ID: LIB104-063-Q1-E1-C6

<400>      6423

```

```

aggtagaggt caggaattcc cgggtcgacg gggaagtcca catgttgctg ttgaaaaca 60

```

gaaagtttac cgctgttgca ataattccct agaaaagtca gaatgtgata aaatgtcgaa 120  
accttttgta tattaagatc tgataaattt actacagtgg gaattttatt tcataatttt 180  
tggagctagg gaagtatgga tgttgacgta ttctttacag actatcctgt ttaggcagat 240  
tgctgttatg tttgcattgt ttgcatatgt ttgcttcttt aatgattcga tttgaggata 300  
ggactattaa atatgcagag gcatttagta tgcaatgttg aataacaatt ttagtgattt 360  
gctacagtag agtatgataa ggtttttgca atagtttata ctaacttata tcacgtgtcc 420  
tggttgagtt ttgtgtggat gaagct 446

<210> 6424  
<211> 89  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-C7

<400> 6424  
aattccccggg ccgacgggaa actcaaattg tagacgcatg gttctacaaa taggacgcat 60  
ggaggtccgg atccccaggt tcaacaaag 89

<210> 6425  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-D12

<400> 6425  
attccccggt cgacggggac gtgtacgatg accagccgat cgagtgcggc ctggacagcc 60  
tctacgatgg ctggatgag cagctgctcg agcgcgcgat gatggaggcg agcgtccgct 120  
cggcgggagc cgctgagggc ggcgaggatg ccgggggtgga cgtgaaggcg gacgagttca 180  
tcgcaaagtt ctacgcgcag atgaagctgc aacggcaaat ctctgtggctg caatacaacg 240  
agatgatgga aaggagcgtc tgctagaaca acagtgtcgt ttgctcaatc ttgagttttg 300  
attcatcgat gtcaattgca agttagatac acataatgca taaaccgtag ttgtcacatg 360  
tatatatgtg catatatattc tattgatttc tcaatttctg aactttgtat gcaaagttg 419

<210> 6426  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-D2  
  
 <400> 6426

```

ggccaagaat taccgggtcg acgggtctgg tattatgaaa cgcttcatca ttggcatatt   60
ggatgcatga tcatagactt gacatcgat ttgtcgcaga gccatcggtt catagtcac   120
atacatgtca cgaatgcatc attgcacatc ccggtacagc gcgggacgca ttcacatagc   180
agcacatggt gttctaacta gtgcagttgt attottgagt tgtaaataaa tttaaagtgtg   240
gatgtcatca atgatacagc attgtctcac gtgaagacag aatgatgaat actatgattt   300
ccccacaagt ctggattcaa ctcccgttga tttacaa                               337
  
```

<210> 6427  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-D3  
  
 <400> 6427

```

ggccaagaat taccgggtcg acgggtgact atctgttgat caacgagcta gtcaactaga   60
ggcttactag ggacacattg tgggtctatgt attcacacat gtattacgat ttccggataa   120
cacaattata gcatgaacaa tagacaatta tcatgaacaa agaaatataa taataaccat   180
ttattattgc ctctagggca tatttccaac atcttcatcc cgcgccttcc acagattgat   240
aaactttagg tcatccactt aagggaaatt tgttactgtg ctacaaaacg aggetcaaca   300
cgagtctaaa aaataagttg tatagtagac atcaagttct cttttggcgt cgtaaccggg   360
g                                                                           361
  
```

<210> 6428  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-D4  
  
 <400> 6428

ggtaagaat taccgggtcg acgggctctc gctatatcat gacagtcggt ttcgggttt 60  
 ctctactgag gtgctcgctt ggccgaaccg gggcacaatc gcagtagttc tctgggtgcc 120  
 gcgttagccg atataacgga acgtaaggca gcaaaacaca ggaaccgggc aaaccaaca 180  
 tttagcaaaa gacatgattt ggagctgatg catataaggc caaactcgcg acgccgaaca 240  
 ctccctaagg tattcggtct ttatgaagac aggccgaaac agagcccttg gtaaaaaagc 300  
 ccctgggtgc caggtacgcg caaaattctg gcgtggccac atgccaaaac gccagcctcc 360  
 tcctcggtta tgggaaaaac cgggggatgt tgtcaacaag agacagtaaa aaaggtttat 420  
 gcacggtctt aatctaaaa 439

<210> 6429  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-D5  
  
 <400> 6429

ggtacaggtc aggaattccc gggtcgacgg gagaaggtca catatgtgta ccaggaaaaa 60  
 gtttgcggtt tgaaggagga ctgaagttca gagtgatgtg gctgtgaagg ttcagagatg 120  
 ttttttagt atattcagac atgtttttcc tctcttattc ttcatttttt aacttcttca 180  
 taattgatta gataactttt aaggcaacat gttgtgtgtc gaaaagctta gggactcttg 240  
 tgtgtacgtg aaacactttg atcaatagac tctttagttt agaaaatgat gaaaaaatat 300  
 ttaaaaaaat tccttcagcg aaaatagga gaataaatt ttcattgggc 349

<210> 6430  
 <211> 98  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-D6  
  
 <400> 6430

taaaggtcag gaagtcccg gtcgacggga aaaagtaaca taattctccc agttctcact 60  
 ttgcggctga aaggaggcag gacattcagg ttcaaagt 98

<210> 6431  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-063-Q1-E1-D7  
  
<400> 6431

cccggtcgac cgggacaaag aaatattaca ctcacagttc taaatatacg tctcaaagaa 60  
gtcacggaca ccgggttctt aaaaagcctg tctcatcata taaggatgat cacaagcaca 120  
cttttcgtct acaagtttaa ttcactactg agtcactcag caatgtagga ccacttgca 180  
tgacaaacag agaaagaaaa caatcagttt aggagggaca tgaatcttag atctactcga 240  
ttctagaaac gatggcaccg caacattaga agcagcaa at ggaccaacac aatcgactac 300  
accgtgagga gattagcaac accaatgctg gatctgtgat gcatcgagga aagatgggca 360  
gggaatgaac gaaaaaggta accaaaagga agactcactg tgctttgttc tagaaccttc 420  
ctactgg 427

<210> 6432  
<211> 318  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-063-Q1-E1-D8  
  
<400> 6432

ggtaacggtc aggaattccc gggtcgacgg gctgcataga ggggggaaga gttggtgata 60  
aaggcgtgaa attgttgggtg aagattgcgg tgatgatgat ggcccccggc ggtgttccgg 120  
cgccaccgga agcaaagagg agagagcccc cttcttcttc gtcttccctg acctctccc 180  
tagatgggag aaaggtttcc cctatgattc ttggctccca atggttggga agggcgagag 240  
cccctccgag attggatcta actctctgtc tctctctgtc cctctccgtt tctgcttccc 300  
tgattctgcc cttcaacg 318

<210> 6433  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-063-Q1-E1-D9

<400> 6433

ggtaacgggc aggaattccc gggcgcacgg attttattca ccacatgata tgtgttttgc 60  
 ttggagcgtc ttgtatgatt tgagtctttg ctttttagtt taccacaatc atcctttctg 120  
 tacacacctt ttgagagaga ctcacatgat ttgaaattta ttagaatact ctatgtgctt 180  
 cacttatatc ttttgagcta tatagttttt gctctaagtc tttacttata tcttttagag 240  
 cacggtgggtg gttttatttt atagaaataa ttgatctctc attcttcact tatattattt 300  
 tgggagtcct ttagaacaac atggcaattt gcttttaggc ataataaaaa ctttcatata 360  
 agtgcattga atactaagag aagtttgata attgatgatt gttttgagat atggagatag 420  
 tgatattaaa gttgtgctag ttgagtagtt gtgaa 455

<210> 6434

<211> 435

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-063-Q1-E1-E1

<400> 6434

ggtcaagaat tcccgggtcg acggggggcaa ggggtgtatt tctcctcagg aatttgattg 60  
 atatcctgga acagctcaga atgttggtga tgatcacgac acatttgctg agagatttca 120  
 tgcagatgta atcgatcggc aatgacatca agtcaaagga atgatggagc gaaagggtat 180  
 tggaatcatg ggtacaacac aaactcgaaa tcaagcttgc tgttcaaggc gaaaagtgtat 240  
 aagacaagga agatcgatgt aagcttaacg cattgttgga agttgtgctc cggaagaag 300  
 gaccacgtag catagttaaa atttagcatg gtaatgatat agccgatcag gctangaatg 360  
 actataagga ttattaaact cgtaagcaac aaacattacc tagagttata gaatcggagt 420  
 gtggaatcga ttcac 435

<210> 6435

<211> 263

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E5

<400> 6435

cccgggtcga cggggatcct gaacgacgag gagccgtgcg gggggttctt ctgcgactag 60  
ccgccgctgg cgtggtggac ggagccgacg gatccctgga aatgaggcgc ggcacggagc 120  
gagagactcg gtgggagacg agggatactt cgcgcgggga ataaaagatt actgctcaat 180  
gcacgggctt ttctgaaatt ttctgaaatg gctgtttta tcgaagcgtt tcctgtcaaa 240  
ccctcgccgt cgctatgcag cca 263

<210> 6436

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E9

<400> 6436

aggtaacggt caggaattcc cgggtcgacg gggctaacac catggaatgt tcggtgagtc 60  
agtctacaga atatgcctgt gcaaattgag ctataacatg ccatccatct tacaacataa 120  
ttaaggatat gtgagtacct atttatacta ctctatgagt atctccaaga gatgcacaca 180  
accgtcgcga tgtgacgtac cagcaagtca aactcaacat aagctaaagt gtggaatact 240  
gatgatgcaa cacctcctac tgaagaatgt aaagcctcaa tgataacgac atacataaag 300  
caaccaagta accctcttgt gaattgtata gccagagccc cggctaaacc tgcattcagg 360  
aataatgtta ttattcaaac aagcaagatt gaagcaagaa tatcctgaac tactactaac 420  
agaattctat catcattaag gagtatacat ttcaaccttt 460

<210> 6437

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F1

<400> 6437

cgctgccagg taccggtcta gaattcccggt gtcgacggga acaaggggagc gtgctacgac 60  
ttctggctgg acttcagctc gtgcatgagc cgctgccgcc agccctccga ttgcggcctc 120  
ctccgcgagg actacctcga gtgcctccac cactccaagg agttccagcg caggaacagg 180

atctacaagg aggagcaacg tcagataaga gctgctgctc gcaaggccaa ggacgaagcc 240  
gaaggagctc ctgctgttgc agctcaccac tagcatccgt ttttatttgc tgcaagtgtc 300  
tccatgttcg gctatgagca aggcaataat ttctaaaca ttctaccctc ccactccatg 360  
acttgttcca aaatcatgag ttcgataaac aaccttggtc aacaagtttg tgcattgttg 420  
agatattaag cgataataaa cgcttgattc aaccatgaaa catgat 466

<210> 6438  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-063-Q1-E1-F11  
<400> 6438

aggtaacggt caggaattcc cgggtcgacg ggtatccacc gtggcgaact tgtagtcagt 60  
gctgttgaca aaccagttga aacggtcgca aggtctctgtg gccatgcagt actggtagat 120  
gaggacatga tggcgacgc acaattgagc gacggcaacc ttctaatacta tgccgggacg 180  
accggcggtg tactgaaggt cgatgccgac caccttgtagc ttgtctccag caagcaactg 240  
ctcaatgcgg ttgatgtagt catccacat gcccgagtcg atggtgtata gaaaaaatga 300  
aatgttttt gaaaacaaag gataaaataa aaacgaaaaa ggataaataa aaggaaagaa 360  
atagaagcag aaacagaaaa aagcacaaca aaaaagaaaa aggaaaacgg agaaaaccag 420  
aaaaccggca aaaggaaaaa aattaaaaa 449

<210> 6439  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-063-Q1-E1-F3  
<400> 6439

ggtcaagaat acccggtcg acgggaaggt gaaggctgtg ctgacgcgt cgctctactc 60  
gggctactac gacaagatcc ggggcatgta ctacgagaac ccggccaaga cgggggagat 120  
cgtggcggtg taccagccga gccacgagga gaagcaggag tacgcgtcca acgagcacia 180  
ccagaaggcg ctggcggaga tctacctgct cagctactgc gacaagatcg ccatgagcgc 240



ctgggtccacc ttcggttatg tgcctacgg cttcgccggc gtcaagccct ggatcctgct 300  
 ccggccggac tggaacaagg aagtgtccga cgtcgctgc gtccgggtcca cgtccgtcga 360  
 gccgtgcctg cactcgccgc cgatactcgg gtgcccggcc aagaaggagg tggacgtggc 420  
 ccggtcaag ccctacgtcc gacactg 447

<210> 6440  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-F6  
 <400> 6440

attcccggt cgacgccaag aaaagcttct atcaatgtat catcagtatc aatcacgaca 60  
 tgacaccaca caacagatat gctgctgtca gcagtcctct ctaaataagac actgcaatta 120  
 tcgtataagt acatcattgc tgctgtcagc agtgcctctt aaatagacac tgcaattatc 180  
 atgtacatca ttgctgctgc aatgaacat taagagatta tttaaaatcg agcctaccat 240  
 ctgctgtgtc gtcaacagag gggtgaggcg gagttacaaa atctgtatga gaaaccgagg 300  
 gattgtccga gtcagcgaca tctttgttat cttcagagct gtcagaagca gctgagatgg 360  
 cgtcacctga ttctgaatgt gttctgtcca catatgcttc aggtaaggag ctctcggcc 420  
 cgtcagcat 429

<210> 6441  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-F7  
 <400> 6441

ggtacaggtc aggaattccc gggtcgacgg ggcgctagac ttacggcaca ttacgggacg 60  
 gagacttggc tctgaatga tcgttctttt ttctctctct acccgcgcca ccttgcgtgca 120  
 caggagggat tgctaacaca taatactgcg ctgcacctct gaaggaaaat tagtagccac 180  
 catgaacgag gatcatgccc ggctcggtaca tttctttgat gcatcttggt tgttcacctt 240  
 gctgtataga aagatgagag atcagtgatc ggaaccgatg cattctgagt tagagattat 300

ctgttcttcc gtacaggggtt caaatatcag ttccgtacc accatggcga ttactatctg 360  
 acatggagtc agcttttcgc aaga 384

<210> 6442  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-G10  
 <400> 6442

tcccggtcg acgggcacag gaaaaagggtg gaacactatg tgatctctgt ttactcacca 60  
 ttagtcacaa gaacgtcaca cacctgttgc gtaacacgat aatttatcac tacacattct 120  
 tagacggatc ctctacgcg catgcactca gtgttcactg aaatctatct ctatgaacta 180  
 ttgctcgaac tgtggtcaag aaatatgttg aactcgctcc atcttcatca gacatctgta 240  
 cactatacga tcctgtctcg atagttgcag tcatcatgcc acgtatatcc tcagtctcat 300  
 gacttctcta ctgcctgtac tcatatactg tcatcatcat atctcaattt ctctctctcc 360  
 gttcg 365

<210> 6443  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-G11  
 <400> 6443

ggtaaaggtc aggaattccc gggtcgacgg gcatgatatc actgtggcgg actatgagat 60  
 cgttgctcat gcactagagg atacggtcac ggagcacacc atccgcgtaa cacgctccac 120  
 actaaagagg cgtgctacca cagatgcggg agcgtgaaac cccactgcaa accaatgttt 180  
 tactgcctca agtaatcgtc gctctcacgt gctgagtcac tctcacattg tcccgtagtc 240  
 atatgtcgag tgcattcggt agtaaccggt atcaatagtt gaactcctca ttcacgcag 300  
 cgtcctctct aaaggattca atcctacatg cacgtacaca cgtcgtccta gctatacgaa 360  
 attctctctc 370

<210> 6444

<211> 447  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-063-Q1-E1-G12  
  
 <400> 6444

gtcaggaatt cccgggtcga cgggcaagag acagctgttg aacatttttg gagctgtgta 60  
 cagatacaag aagttaaagg aatgagcgc agaagagagg aagaaggta caccacgcac 120  
 tgtcacggta ggagggaaag catttgcaac atacaccaat gctaaaagaa tagtgaaatt 180  
 ggtaaattgat gttgggtgctg tgggaacaa tgatgctgac gtcaaccaat atctgaaggt 240  
 ggtgttcatt ccaaactaca acgtatcaat ggctgaagtg ctcatctctg gcagtgaact 300  
 gtcacagcac atcagtactg catgcatgga agcaagtgga acaagtaaca tgaagttctc 360  
 tctgaatggc tgtgttatca ttggaactct cgatggagcc aatgttgaaa tcagagaaga 420  
 attanggcaa gacaacttct tcctttt 447

<210> 6445  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-063-Q1-E1-G3  
  
 <400> 6445

ggtccagaat taccgggtcg acgggggagg catgttggg catcgttttc cacggaggct 60  
 ggggagacta tccgcgcaac cctgtttccc ggtgatggca tcgggcctga gatcgccgag 120  
 tcggtaagc acgtattcaa tgttgcaggt gtaccgatag aatgggaaga acattatgtt 180  
 ggtacggaag ttgatccag aacagagagc tttttgacat gggagagcct ggagtctgtg 240  
 cgtagaaaca aagttggctt gaaaggctct atggctacac ctattggaaa aggccaccgt 300  
 tctttgaatc ctacattaag gaaagaactt ggactctacg ccaatgtcag accttgcaac 360  
 agcctcccag gctacaagac tagatatgat gatgtgaacc ttgtgacaat ccgtgaaaat 420  
 actgaatgag agtatactgg cct 443

<210> 6446  
 <211> 437

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-063-Q1-E1-G4

<400> 6446

acctgccagt gccggtcaag aattaccggg tcgacgggct agcggatgct ttttgataag 60  
 aagggtgatg actcaacata aaagtaaata gataggccct tcgtacaggg aagcagggat 120  
 ttgtagaggg gccagagctc gatttttaaaa tagagatgga ataacatttt gagcggcata 180  
 cttttgctgt caacgcaaca actatgatat ggctgtatct tccatactac atgcattata 240  
 cgcagttccc aaacagaatg gtaaagggtt atactcccc aaccaccaac aagcatcaat 300  
 ccatggcttg ctcgaaacaa cgagtgcctc caactaacia caggcctgng ggagttttgt 360  
 ttaattatgt tgatttgctt tgatcttttt ggatcaaagg actgggcatc ccggttaccg 420  
 gccctttctt gtgaatg 437

<210> 6447  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-G6  
 <400> 6447

aggtaaaggt caggaattcc cgggtcgacg ggacgctcaa gaacgtgacc ccggcgctgc 60  
 acccgagat gatcctggcg gcgaccaaca acggcgacat cgtggacgcc taagcaaagc 120  
 aatgaaccac ggacaccaag gcgtacgtac gctggtgttt cggggcgaaa aatcaataag 180  
 atggttcggt gaaacagagg atgcttaggg acgaggtctt gtctttgtga tttgtcagac 240  
 tcgtgtttta ttccgatgtt tatctttagt tttcttgtgt tagcgtatgt tgttcatgcc 300  
 acctgcccgc catgtgctct gctctgctct gcctcacggc agctccatgg atgatgaatc 360  
 cttatggaac aagaggaggg aataaaaagg ttgagttcta tgtaaaaaaa aaaaaaaaac 420  
 aacaaaacaa aaaaacaaaa aaaaggaaaa a 451

<210> 6448  
 <211> 199  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-H1

<400>       6448

```
cgggtcgacg cgatcatcaa caccaacacc aacgttgccg gcagcatcat acccaagcga    60
tgacgtcatc gtcaccgcaa acatttgacc ccacatcagt ataaggtaca tttgactacg   120
ggagtcgacg gaacactgac actaactaca ggttgggtcaa aggttcaaag aaattctcct   180
ttaaattagg ccaatgcta                                     199
```

<210>       6449

<211>       473

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-H5

<400>       6449

```
ggtacaggtc aagaattccc gggtcgacgg gaatgtatcg cgctgaggca gacgaggacc    60
atcaaacttg ttatgataat tggacgggct agaatcagat gctttgcccc aagagaaatc   120
ttccagagct tgaatgggtgt ctcgaactgg tgggataaag ctcttgtgtg ctaccttggc   180
cagataggta gtcttcagag aatgatcaat gacttggttg atccaaggag caaagaattt   240
caggcacatt gggatgatgcg cagaatcctt cagaatgcgg aggaataagt cttcgacatc   300
gaagacaaat cgatgagaaa tagcatatat tgtgttccga agaacatccg agattgatcc   360
atcagtattc ataccgtcca gaggacaaat agtatatgtg agcagatgat aaatgggttg   420
attctcgaag gtcaaagtgt taagcatcgg agggccatca taatccttaa tct          473
```

<210>       6450

<211>       407

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-H6

<400>       6450

```
ttcccgggtc gacgggttcc gtttattatg acacgtcca tcattgtcat attgctttgc    60
atgatcatgt agttgacatc gtatttgtgg caacgccacc gttcataatt ctttcataca   120
```

tgtcactctt gattcattgc atatcccgg acaccgccgg aggcattcat atagagtcac 180  
 attttgttct aagtatcgag ttgtaatagt tgagttgtaa gaaaatagaa gtgtgatgat 240  
 cttcattttt agagcattgt cccaagtgag gaaaaggatg atgggggacta tgattcccc 300  
 acaagtcggg ataggactcc gaacgaaaaa tcaagaggcc atacatcaga agagaagaaa 360  
 atgccaaga caaatagtat atgtgagcaa aaaaaagcgg ccgctct 407

<210> 6451  
 <211> 367  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-H7

<400> 6451

aggtacaggt ctagaattcc cgggtcgacg ggataagggc ctaaggtacc tatggattat 60  
 gacgtcacgt cgtttttgca tgctatcatg tgactccggg atgcctgttt taagatttcg 120  
 cttgtgttga cagatatgac tatctactgc ctgtagccta cctgggatac catcatatgt 180  
 tgctgaatat ggtactactt ttatcctgct taagttctgt attttgcct agttgaaaaa 240  
 caagcatagt aatgaatctt cttttttaa acattgtccc aggtgaacaa gacgatgata 300  
 gcgactatca ttctcccaga gactccatat atgactctta gtgatcacat aaagaggcca 360  
 tacaaga 367

<210> 6452  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-H8

<400> 6452

gggccgacgg ggagcacaag aaggcggagg agcacaagaa gaaggacggg gagcacaaga 60  
 aggacggcga gcacaaggag ggcatgatgg agaagatcaa ggacaagatc agcggcgacg 120  
 gccacggcga cggcaagaag gacggcgacc acaaggagaa gaaggacaag aagaagaagg 180  
 acaagaagca cggcgagggc cacaaggacg acgacggcca cggcagcagc agcagcgaca 240  
 gcgacagcga ctgagccagc tccggccgag ctccggcagc agcgtgcagt gtaggcgaga 300

tcgatgaacg cttgggagaa gtgtggcata catatatgtt gcagggtttg gagcgtgtgg 360  
taccatatgt atgtaatgcg tgacatgtct caatggatct gtgatgtata ataattagcc 420  
ggctgcactg cactgcac 438

<210> 6453  
<211> 322  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-063-Q1-E1-H9  
<400> 6453

aggtaacggt caggaattcc cgggtcgacg ggaaaccttc gacagcacga tcacctaccg 60  
gctctcacca taacacgacg gtcacttggga tccttctcca cagaggtgct taatcatgct 120  
cgtocattgc agaggcggag ggcacgcac agggctaact taatgtctgt tatggtatct 180  
aaggtgccac ctgatgcgaa catggcagac caaggtggtg aaacaggaca tgattcggag 240  
ccgatgcata tagtactatc tattcgggtgt gacccaactg tgacagtgtt ccgacttaac 300  
agaccatact ttgtggtacc ta 322

<210> 6454  
<211> 365  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E1-A10  
<400> 6454

tccgggtcaa cgggaagttc acaggagaca agcgacggag ttagaagttg taaatatgca 60  
ttgttgatc acgacctgaa tgaaataaac gaaataatgc tcttgttcaa acatcaaaaa 120  
aaaaaaaaaa aaaaaacaaa caaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aactaaaaaa 180  
aaaaaaaaac accaaggaaa acaaattatt aaaaaaatca aaaaaaaaag gccctccaaa 240  
acaatcaaat ctaacttacc cttcccttca acgcaaaatc cctccccatc taaaccctaa 300  
ctaaaattaa aggcccggcc tttaaaagta cccgcacggg aaaaacacaa cctttaccca 360  
accaa 365

<210> 6455

<211> 434  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E1-C10  
  
 <400> 6455

```

ttccgggtca acggggccag agatcatcac caccctgtat gactggcgca tccacgtcgg 60
cgatggcgag tcggcgccgc gagaccgcag tgagcgcatc tgccaccctg ccgctcctcc 120
tgtagccggc gtgatgacga cgaagatgac caccgtcggg aggaccaaga ccgagatcgt 180
cggggccgtg acggctccag gaacggcagg ggctgggggg agagggtgcg tcgcagcctc 240
tcccgcgccc cccgggacga caaccgcgac cgtggctgag agcagcaagg aggtcgtgat 300
ggcggtcggc gatgccatga ggaagtggcc cttcgtctgc tgctacgtgg ctccggctcc 360
tccagcgtgg tggccgcaca cgatgccgag atggtgccag ttgctcctcc gccgcctggc 420
cgtacaatct cccc 434
  
```

<210> 6456  
 <211> 148  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E1-C11  
  
 <400> 6456

```

tgtacgtgtg aaatgtcatg tagtggccac ataagccaac cactggctgt gggtttcaag 60
gatttttgca gtgggatttg tagggtaacca tgctgcgctg tgtttgggag ttgacatcgg 120
tccatgggat atgtgccacg ctcttaaa 148
  
```

<210> 6457  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E1-C9  
  
 <400> 6457

```

ttcccggtc caccgggacg tccgtgaacc ggtgctccag ctgccggaag cgcgtggggc 60
tgacggggtc ccggtgccgg tgcggcgaca tgttctgcgg cgagcaccgg tactcggacc 120
  
```



ggcacgggtg cagctacgac tacaaggccg ccgccaggga cgccatcgcc agggacaacc 180  
 ccgtcgtgcg cgccgccaag atcgtcaggt tctgaagctg aaaccaaggg gaaagaagaa 240  
 ttcagaattc cagccgaggc aaagcaaaga atcatctcat cgaggcagtg ggccgccgtg 300  
 cgagccgcta gtattatgct gttgttctcc ggagtgttcc cttttttaat taaaaaatc 360  
 tttatttatt ggaaggaaaa aaatgggagg taaagatgtg gatg 404

<210> 6458  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E1-D12

<400> 6458

ctgcagttcg gtcgacaatc cgggtcaacg ggctgggacg aaaaggcacg ctaagagggc 60  
 atcaaataat atgtatggac gggcattctc tctactgaagc aactacaca gttctacaga 120  
 attccgcctt ggtgggtccg tatatggacg aacacaagaa ttttctacag tccaaacacc 180  
 cggagaattc tgacgactag attacacgtg aacaaacgag gacttttgcc ggttggttgc 240  
 agaaacatgc cctgaatgat ggtgatattc aaaatgacct atactcgctg tcccagttac 300  
 catcttcgaa tataatgact ttcaaagggt accagataaa tgggaataca ttttacacga 360  
 tcgccaaga taagaagagc agcaagcaaa acagtgggtg ctgcttcgat gcaacaacca 420  
 acacgggaaa ggaagcataa taggggtaca t 451

<210> 6459  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E1-H12

<400> 6459

gtcccggttc aacgggtcgg tgcatctcat gatctggaac tgcaccatcc ccggaaagca 60  
 cgggactgat tgggaaagtg gatactaccc acttactctc cacttactg aggactaccc 120  
 tagcaaacct cccaagtgc agttcccgca tggtttttcc caccctaatg tctatccttc 180  
 agggacagtc tgcctctcga ttcttaatga ggatagtggg tggagacctg ccatcactgt 240

taaccacatt ccagttggaa tacacgagtt gcctgatcaa actaatccag ctgatgctgc 300  
ctagactgat ggttatcagc tcgttatcca cgatccagca gagtacaaga gaagcattcg 360  
gatgcaggcc aagcactagc ctgcctctgg t 391

<210> 6460  
<211> 195  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-A10  
<400> 6460

cgggtcgacg ggaggttcac gggagagaag cgacggagtt agaagttgta aatatgcatt 60  
gttgatcgc gacctgaatg aaataaacga aataatgctc ttgttcaaac gtcaaaaaaa 120  
aaaaagaag taaagaaaa taaatggaaa agatatatta atgtaaatga aatgaaaaat 180  
aaaatgtatc caagg 195

<210> 6461  
<211> 358  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-A11  
<400> 6461

aacgtggatg tggacgagtc gtagagaaag ctcttagatg atgaaaagaa acccgatatc 60  
acgaaacgac cacacactcc tattggagat gaggtggaat gcaagaagcc aaagatagca 120  
gaaggctcaa ggtgccaagg agaagaacct gaggctggag ggataaagaa ttcctcctgg 180  
gtctgatgac aggggaatgc agtaaacacc agaagcatca aaactatgat ctggaacagt 240  
atcctgaata aactattttc tggattatga atgaattctg aagcatgggg ctataagtga 300  
attatgtaac atggatttgt aactatgggtg gatgttaagt taacgttcta tcagtgcc 358

<210> 6462  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-A3

<400> 6462

```

gggtcgacgg gtgtgatgtg cttaagatgc agatcctcaa caggaaccct acgacagatg 60
gtattgcagt taagaggaaa ctcaatgctg atggatccta ctataaacct gagtagtatc 120
ccaaaacctc atgggttact gcaaaaggac ctcccgtaga tccatcgact ttatctgggt 180
ttacatgtga atcctcatat tcatctgatg agtcatctac tctaactaga aattgttcaa 240
aaataatcat ggtgaggtat ttgccagata tgttggaact aattgcagga acggctctcc 300
tatgaagaaa atctgggttc caaaatatg ccttgaaagt cttcaggtga atgtcctcat 360
gacaccacct gtgaagaata ggaacccac atcaaa 396

```

<210> 6463

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-B11

<400> 6463

```

ggtcgaaata cccgggtcga cggggaccac aaggagaaga aggacaagaa gaagaagaag 60
gacaagaagc acggcgaggg ccacaaggac gacgacggcc acggcagcag cagcagcgac 120
agcgacagcg actgagccag ctccggccgc gtcocggcag cagcgtgcag tgtaggcgag 180
atcgatgaac gcttgggaga agtgtggcat acatatatgt tgcaggggtt ggagcgtgtg 240
gtagcatatg tatgtaatgc gtgacatgtc tcatggatct tgtgatgtat aataattagc 300
cggtctgact gcactgcacg gtgcttgtaa taataacggt aatgaatcat gttggtattg 360
atac 364

```

<210> 6464

<211> 445

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-001-Q1-E2-B2

<400> 6464

```

cggtcgagna ttccgggtcg acgggaacat ctctccac tgaaagcgca tcgccggaaa 60
tcctgaaata aatccaggaa taatgcgagc accaggattt gaaccctggt gggttgggga 120

```

taccactgtc cacctaacca actcaaccac aggttgattc gcaatgacta catgtattaa 180  
cgaattacta catgctcatt ataattgctc ttttacgatg ctaagatggg tagttatgat 240  
caattagtgg tttagagggt aggcgtcgag gtaacttggt actattggct tttttttga 300  
ggaatgtggg cctgtcgaag cggtggactc tgggtgttacg ttagaatttt cacagatgag 360  
cgcaatgcac aaaaaaagga aaccaaagac ttcccaaatac tggcagcatt ccccaccatc 420  
tccttcctct agaacattct gtctc 445

<210> 6465  
<211> 304  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-B3  
<400> 6465

atttaaacad gtccatggat tcatgtctgt acaaagtgtt taactgatga ttacatccca 60  
aagtagatgc acagtcagga ggcgatttaa gtttttataa aataccatt gttcatgctc 120  
caagtgtacg ctaagatgac caactatggg cagtcagtcg tttagaggcc tagcctccag 180  
gtgcattgta cctcaacatc aattatggca cagatattca ctttcctett caagattgat 240  
ccagatgaga cgcaacgatc tgtataccat ctcgtatgcg aatttctgaa ggttgtaa 300  
attt 304

<210> 6466  
<211> 186  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-001-Q1-E2-C11  
<400> 6466

cggttcgacg ggcaatggag gatgtaggtg tgatatgtca agtagtggac agataagcca 60  
accactggat gtggttttca gggatttttg cagtgggatt tgtagggtac tatgctgcgc 120  
tgtgtttggg atttgaaata aaacgatggg agatgtgcca cgctcttaaa aaaaaacagg 180  
agaggg 186

*(The following text is extremely faint and appears to be bleed-through from the reverse side of the page. It contains several paragraphs of handwritten notes.)*

<400> 6467

<210>	6468
<211>	452
<212>	DNA
<213>	Triticum aestivum

<400> 6468

<210>	6469
<211>	405
<212>	DNA
<213>	Triticum aestivum

<400> 6469

2889

ggggtcccg ggcgggtgcg ggcacatgtt ctgcggcgag caccggtact cggaccggca 120  
 cgggtgcagc tacgactaca aggccgccgc cagggacgcc atcgccaggg acaaccccg 180  
 cgtgcgcgcc gccaaagatcg tcaggttctg aagctgaaac caaggggaaa gaagaattca 240  
 gaattccagc cgaggcaaag caaagaatca tctcatcgag gcagtgggcc gccgtgag 300  
 ccgctagtat tatgctgttg ttctccggag tgtttccctt ttttaattaan aaaatcttta 360  
 tttattggaa ggaaaaaaat gggaagtaaa gatgtggatg aaaaa 405

<210> 6470  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-D1

<400> 6470

cgggtccgaga atcccgggtc gacggggcgc ctgtcctaca actatgacaa taccctgact 60  
 ctcaaggggc gcttcaactc ggatcttcat gtgggcggga tgatacagtt tgaagaaagg 120  
 ttggctagta ttgtgttgcg ggcaacaggt gatgttgatc ttcgtgctat gggtcagcag 180  
 ccccggtcg ggttccaagt ggtgtttgac ccgacctgga agtaagtagc ctttgccctt 240  
 gcagtgttg tgcttgtttt gcttttgctt gggaggaact tttttgtaa aacggaaggt 300  
 cttgattttg ggttgtccat gatgattgat gtatggactg aagctttaga cttgtcaatt 360  
 cgactatgtt ggttttgcgg aagcttgatt gtcctctcat ac 402

<210> 6471  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E2-D12

<400> 6471

gcacggtcga gtatcncggg tcgacgggct ggaaggaaaa ggcacgctag gagggcatca 60  
 aataatatgt atggacgggc attctctcac tgaagcacac tacacagttc tacagaattc 120  
 cgccttggtg gctccgtata tggaggaaca caagaatttt ctacagtcca aacacccgga 180  
 gaattctgac gactagatta cacgtgaaca aacgaggact tttgcgggtt ggttgcagaa 240

acatgccctg aatgatgggtg atattcaaaa tgacctatac tcgctgtcnc agttaccatc 300  
 ttcgaatata atgactttca aagggtacca gataaatggg aatacatttt acacgatcgc 360  
 ccaagataag aagagcacca accaaaacag tgggtgtctgc ttcgatgcaa caaccaacac 420  
 gggaaaggaa acatat 436

<210> 6472  
 <211> 157  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-D2  
 <400> 6472

acgggtccgac tattccgggt cgaccggaag atcgactaa ctgagctgac agacgctcac 60  
 tcgaaacggg ggtctcaacc cgcatgataa gttcagcgca atacgacaga tatcaaaacc 120  
 gatggctact gctgcattga ggtcaacaag tgaagtt 157

<210> 6473  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-E10  
 <400> 6473

cgggtccacg ggggttaatca taagtaggag gtttgttcaa gtaagaacag tacctaagca 60  
 ccgggtccacc cacatatcaa attatcaaag tagcgaacac aaatcaaadc aacatgatga 120  
 aagtgactgg atgaaattcc cgtgtaccct caagaacgct ttgcttattg taagagatcg 180  
 ttttggcctg tcccttgccct caaaaggatt gggctacctt gctgcacctt tggtactatt 240  
 accattactt gctcgttaca aaatatcctg ctatcaaact actatgttac ctacaatttc 300  
 agcacttgca tacattacct tgctgaaaac cacttgatcat taccttttgc tcctcattgg 360  
 gttcgacact cttacttata ctagaagagc tacaattgat cccaatactt gtgggtca 418

<210> 6474  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-E2

<400> 6474

ccgggtcgac gggaggggtt gttttcttct ctaagtcctt tttcctcata acatatgccc 60  
ttgttcaccg catcgtaact ttgcacccgt agctccgttt tgggcgtgta gcatatcaaa 120  
ttgttcacat ggatatgcac ttcatttcat tccattgtac catattcatt tgagggtcatc 180  
ttgatgccct aaatgctgtt gcaagagtgc tatgtaatgt tagtttcaga ttcttaccag 240  
attatcgaca tttgtcattt ttgccatgtt taatgatgag gacatgacta ccttggatat 300  
gacccaaaat attgcatata tgcataattg tcagggtgatt tctagtgcaa actattcaat 360  
aatctattta tgttatccag aacaaaaata cttcacacac ttttgtgttt tg 412

<210> 6475

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-E3

<400> 6475

cggtcgagat attccgggtc gacgggtact tgaatattgt tatgataatt atgcttctaa 60  
tgccatatgtt aaaccatata ttgagaaatt caacgctgac gaagaagaga ctaatatttt 120  
gcaggacgct atggaagaag aaattgatga aactgtgagc tcattggatg aaagagatga 180  
tgaggagagc gaagaacaaa ggaggaagag cggattagct acccgtgtcc accttctaata 240  
gagagtaacc ctccaactca tacattattt aattcccctt cgttcttacc gaaggatgat 300  
tgctatgatg attgctatga tcccttgaat ttgtttgaaa tatccctttt tgatgatgct 360  
ttctatgctt gtggccaaga tgccaatata aattatgctt atggacatga acttgctaga 420  
gtccttatgt taaacatgaa attg 444

<210> 6476

<211> 438

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-001-Q1-E2-E4



<400> 6476

gggccgagaa tcnccgggtcg acgggctgtg cgtctaggct ggatggtaat aggaggcaag 60  
ggacacgaag ttttatccag gttcggggccc tctcgatgga ggtaaaaccc tacgtcctgc 120  
ttgattaata ttgatgatat gggtagtaca agagttatct gttttgtgca ggtacgaggg 180  
actcgtgcat agcctcctac tggattgata ccttggttct caaaaactga gggaaatact 240  
tacgtacttt tgctgcatca tcctttcctc ttcaaggaaa tccaacgcag tgctcaagag 300  
gtagcagacc tttccttaga acgtttggtg caattattga tatgaaggaa gggaatatta 360  
tattccaatt tccgttaagg aaaggcatgg aacacttccc tagaaagaaa aataaattac 420  
cttatgaatc tattatga 438

<210> 6477

<211> 289

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-E6

<400> 6477

ttcccgggtcg acggggcgggtg gcgcgagctt ggagctgctg gaaggcaagc ccctcccagg 60  
tggtcttgcc cttgacgagg cgtagggtga ttcgggttca cctatcagct tgctgcgtgc 120  
cctttgtttg ggatctcatc ttggtctaac gctggaacgt tatatgtccc aatgaaactt 180  
tgacataggg ttgtcgccaa tttttgctag taaatgagtc gtgaataagt atcaatttgc 240  
tccgtgagag tgaactcatg tgactggaac ttaacgtagc cccgtcgat 289

<210> 6478

<211> 124

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-E7

<400> 6478

acgcggccgt acggactgaa ttcgggggtcg acgggaagat ctactgact gagctgacgg 60  
acgcgctgcg gacgtggggg tcgacctccg cggacgaagt gctgcgcatg atggcggaga 120  
tcca 124

<210> 6479  
 <211> 211  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-E9  
  
 <400> 6479

tcgagggcaa ggggactggc atggatgcat cctgtgtgga tgcattcagc caaccaactt 60  
 cctacggata atggtttggt accattccca agaattgcta ctttttcttc gcatgttggg 120  
 tagtttgctg tatcatgacg cagcttgta cctagacacg cttctctggc atatattagc 180  
 tcggtgattc aataagaacg tctcgtttcc g 211

<210> 6480  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-F1  
  
 <400> 6480

atcctgccgc acggtcgagt attccgggtc gacggggagt gcgacgaagg tgccatggcc 60  
 gccatagccc agtctgcgcc ggattctgtg ctgatgacat tggcggagtt tgagacggca 120  
 agagaggcgt ggaatgcact caaagagatg aggattgaat aaaatcgtgt cacgaaggct 180  
 cgggcacaag tgctgaagcg ccaatttcac aagttgcaga tggagaaaac tgaatcgggtg 240  
 aacgactatg ccatgctgtt gactactttg gtgggagaga tccacgcgct tgggtgcaaag 300  
 ctgcacgaga ccgagattgt ggagaagttt ttcagttcgg tgactgataa attcacgtac 360  
 atcatcggca cgctcgagca gctttacgac atcgacgaca tgaccataac 410

<210> 6481  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-F10  
  
 <400> 6481

cgggtccacg ggaggggttg atttcttctc taagtccttt ttcctcataa catatgccct 60

tggtcaccgc atcgtaactt tgcacccgta gctccgtttt gggcgtgtag catatcaaatt 120  
 tggtcatctg gatatgcaact tcatttcatt ccattgtacc atattcattt gaggtcatct 180  
 tgatgcccta aatgctgttg caagagtgcct atgtaatggt agtttcagat tottaccaga 240  
 ttatcgacat ttgtcatttt tgccatgttt aatgatgagg acatgactac cttggatatg 300  
 accaaaaata ttgcatatat gcatatttgt cagggtgattt ctagtgcaaa ctattcaata 360  
 atctatttat gttatccaga acaaaaatac ttcacacact tttgtgtttt gt 412

<210> 6482  
 <211> 229  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-F11

<400> 6482  
 cgggtcgacg ggacgggttg tagtctgcga gtagtacata ttctgcatct tagatgcggt 60  
 tgtgcatttc atcgtaacgt tatgggcatc taaccgtgat gggcgtgtag catacatatg 120  
 agtcaactg gagatgcaca tcacttcgat ccattgtacc agattcatga gatgtcaacg 180  
 ggcatgcca gatgctgctc aactagtgcct ctggagcatg atcttcata 229

<210> 6483  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-F3

<400> 6483  
 cgccacggtc cgtacaatcc gggtcgacat gggcgacatg ctgatgatgg acagggtccg 60  
 tcaatggcag gccacgcaca accggtcgta cctgagcgcg gaggagagggc tgcgtcgctt 120  
 ccgggtgtac cgcgacaacg tggagtacat cgacgccacc aaccggcgcg gcgacctcac 180  
 ctacgagctc ggcgagaatg agttcgccga cctcaccag gaggagttcc tagccaggta 240  
 cgcgtcgctc tacgatgggg tcgggtgatga tactggcatc acgttgcttg tgggagggtg 300  
 cgacgccgag ctgtggctgt ccggggcgga caatgatagc tccttgaggg ctccgcctcc 360  
 cagctgggac tggagatcca agggcgccgt cacaccggtc aagtcccaag gcgcaggatg 420

cgctagctgc tgggcgttcg tga

443

<210> 6484

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-001-Q1-E2-F4

<400> 6484

gggtcgaccg gaggcggtca cgtacaaaa agcgcgacga cgacgacgat gatgagagga 60

agccgcggta caagaagcac gacgacgacg atgatgacca cgagaggagg ccgcggtaca 120

agaaacgtga cgacgacgac gatgatgacg atgacagaaa gccacgttac aagaagcgct 180

acgacgacga cgacgatgat gataggaagc cacgttacaa gaagcacgat gatgatgatg 240

acgacgacga tgataggaag cagcgtcgcg ggaacaaccg ccgccgccac gatgacgatg 300

actgattatg acatgagttt aagctgacgc taataagcat agttgcggcg gctttgcatc 360

gatgaattac gacatttcac tttttttc 388

<210> 6485

<211> 432

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-001-Q1-E2-F9

<400> 6485

gggtcgacgg gtacttgaat attgttatga taattatgct tctaattgcct atgttaaacc 60

atatattgag aaattcaacg ctgacgaaga agagactaat agtttgcagg acgctatgga 120

tgacgaaatt gatgaaactg tgagctcatt ggatgaaaga gatgatgagg agagcgaaga 180

acattggatg aagagcggat tagctacccg tgtcgacctt ctagtgagag taaccctcca 240

tctcatacat tatataattc gccttcgttc ttaccgaacg atgattgcta tgattattgc 300

tatgatcnct tgaatttggt tgaatatcc ctttttgatg atgctttcaa tgcttgtggc 360

caagatgcc aataaatta tgcttatgga catgaacttg ctttagtcct tatgttagac 420

atgaaattgt tg 432

<210> 6486  
 <211> 293  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-001-Q1-E2-G10  
  
 <400> 6486  
  
 ccgggtccac ggggtctaca gcaacggcgg tgttggtctc ccacacaagg agatcaagtc 60  
 aagcatcctg aagcctgaga tcgtcatgtg agtcaccgc tcacaaatgc ttttaggaac 120  
 gatgttgtgt ggcgtctttg ttctagtga tactgtaaac agcttaatat atgtggaact 180  
 tgcgagactt gttaaactga tgagagtgtg tgtgcaaat gaaaaagaag ttagtaaact 240  
 caataacaag caagtaaagg tagagattgc ctcacacaaa taagacatca agg 293

<210> 6487  
 <211> 375  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-001-Q1-E2-G11  
  
 <400> 6487  
  
 ccgggtccac gggacgtata gtattctgag agtcctaaac aacatggtaa tttgctttgg 60  
 ttatgaattt aatcctaata tgatgggcat ccaacaggga tatacttgta actttcatat 120  
 gaagtgcact gaatactaag ataagtttga tacatgataa ttgttttgag atatgaagat 180  
 ggtcagtggc agagccaact caagtttata gccggggcat gatctacatg ctgccaaatt 240  
 acttactttc tacccaaaca aacgtccact tcaccaatt ttcttacta aagcttcatg 300  
 gacttgacc aaggagccc gggcatgtgc tccagcgtca cacgtgctgt caacggcact 360  
 gaagatggtg atatt 375

<210> 6488  
 <211> 383  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E2-G12  
  
 <400> 6488

cgggtcgacc ggacttatat tattttgaga gtcctaaaca acatggtaat ttgctttggt 60  
 tatgaattta gtcctaatat gatgggcac ccaagaggat ataataaaaa ctttcatatg 120  
 aagtgcattg aataactaaga gaagtttgat acttgataat tgttttgaga tatgaagatg 180  
 gtcagtggcg gagccaactc aagtttagag cgggggcaag atctaagtgc tgccaaatta 240  
 cttagtttct acccaaaca acttccactt caccgaattt tctctactag agcttcatgg 300  
 acttgcacca agggagcccg ggcaagtgcc ccagctcgcc aggtgctgtc ancgccactg 360  
 aagatggtga tattaaagtt gtg 383

<210> 6489  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-G2  
 <400> 6489

cgggtcgacc ggaggttcac aggagagaag cgacggagtt agaagttgta aatatgcatt 60  
 gttgtatcgc gacctgaatg aaataaacga aataatgctc ttgttcaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gggcccccaa 240  
 aaagattaaa agttaaat cctttaaagg aaaattaaaa ccccttcaaa agtttcccaa 300  
 aattcaaatt aaggggcttt ctttttaaaa attcttaagg ggaaaaacc ggggttaacc 360  
 aaattaaacc cttttg 376

<210> 6490  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-G3  
 <400> 6490

cggtcgtaca ttccgggtcc acgggggttc tgcattggaa tttttcattt atcattctga 60  
 cgttataaca ctttggtttt ctttcatttc catatttggg ttcatatgat tcattgttta 120  
 ttttaactttt ctttttggtt tttgtaagtt tgtaacagtt ttgtaatttt ttacacatgt 180

ttactttttt ctcagtatag aatgtaaatt tttaaagcac acatgaaata ttttgggtac 240  
ccattgaaca tttttcagat acattatgta catgttttaa atacatgctt tgaacacttt 300  
ttcaaagtca tattatcagt atatattttc taaactatgc aaatatttgt ctgcattgta 360  
cataccattt cagaataatc acgaacatct actggaaata tatgatt 407

<210> 6491  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-G8  
  
<400> 6491

tccacggggc tgaagaaagt gagtgcgttg aacttacaaa agctgatata aactcacgca 60  
tttagaagct agatatggtt cttggaactc gttccactgt tcagcataat agtgatactg 120  
cctatagtgg tctacatttg ttttgcttac agttgaaggc cctaacttgt agaacgatca 180  
acattgtgtc aagaagatgc aagtgtatgt acgcatgtgc aaggggaaca agaacggagt 240  
tacaagtgat gatttcagga ctttgaatcc accataatgg gtgcatgaag ccttggacta 300  
aatatacaag atgctacttc ataaatttcg ttccgaggct atttttaggtg ctgcgtcacc 360  
ttagtattgg gccaggccca tgtaatttcg aaataca 397

<210> 6492  
<211> 356  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-001-Q1-E2-G9  
  
<400> 6492

cggtcgtact atccgggtcg actcctcagg agacggctct tcgccctggg gtcttgaggg 60  
gcgcagcctg ccccgatgtc ttgaaagggt atgggactcg ggttggccta cccgtgggtc 120  
attactccga caaataactaa gagaagtttg atacttgatg attgttttga gatatgagga 180  
tggtaatatt agagtcgtgc tagttgagta gttgtgaatt tgagaaatgc ttgtgttgaa 240  
gtttgcaagt cgcgtagcat gcacgtatgg taaacgttgt gtaacaaaaa tgaaacatga 300  
gggtgttattt gattgtcctc cttatgagtg gcggtcgggg acgagcgtg gtcttt 356

<210> 6493  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-H10  
  
 <400> 6493  
  
 gtcgaccggg agattcaatt aatgacgagc tgaggaaaaa ggagaataat cgtttgattt 60  
 tggccaaaca tacctctctt ttgaagaaca tgaagagaaa actcattttg gcgaaaacaa 120  
 aggttgcaaa agcagagatg gctttggcga aagttcagga atatctctct ccagcagagc 180  
 ttccaacgga tctggaaact gttacagacg aggagcgttt cctattccgc agaattggcc 240  
 tgaaaatgaa ggcttttttg atgcttggca ggcgggaagt ttttgatggg actgtgcaaa 300  
 acatgcactt ccattggaag catcgagaat tgggtcaaat tgttgtgaag gggaagacct 360  
 ttgaacaagt taaacatatt gctatctctc tagaagctga gagtggaggc gtgctcaatg 420  
 cactcgacaa gacaacaaa 439

<210> 6494  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-001-Q1-E2-H11  
  
 <400> 6494  
  
 ggggtccacgg ggagattcac ttaatgacga gctgaggaaa aaggagaata atcgtttgat 60  
 tttggccaaa catacctctc ttttgaagaa catgaagaga aaactcattt tggcgaaaac 120  
 aaaggttgca aaagcagaga tggctttggc gaaagttcag gaatatctct ctccagcaga 180  
 gcttccaacg gatctggaaa ctgttacaga cgaggagcgt ttcctattcc gcagaattgg 240  
 cctgaaaatg aaggcctttt tgatgcttgg caagcgggaa gtttttgatg gtactgtgca 300  
 aaacatgcac ttccattgga agcatcgaga attgggtcaaa attggtgtga aggggaagac 360  
 ctttgaacaa gttaaacata ttgctatccc tctagaagct gagagtggag gcgtgctcat 420  
 tgcactcgac aagacaac 438

<210> 6495



<211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-001-Q1-E2-H12  
 <400> 6495

ggggtcgacgg gtcaagcata agtcgtagaa actgcaccat ccccggaag caggggactg 60  
 attgggaaag tggatactac ccacttactc tccacttcag tgaggactac cctagcaaac 120  
 ctcccaagtg caagttcccg catgggtttt tccacccaaa tgtctatcct tcaaggacgg 180  
 tctgcctctc gattcttaat gaggatagtg gttggagacc tgccatcact gttaagcaga 240  
 ttctagttgg aatacaggat ttgcttgatc aacctaatac agctgatacct gnccagactg 300  
 atggttatca cctctttatc caggatccag cagagtacag gagacgcatt cggctgcagg 360  
 ccaagcagta ccctgctctg gtttggggat ccaacgtaac agtctaaaat catgaattac 420  
 cgcacctgaa 430

<210> 6496  
 <211> 147  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-H3  
 <400> 6496

acggtcgtat ttcacgggtc gacgggattt ctgcagtaga aattgtcctt gatcatgacg 60  
 acattattac acggtggttc acttgacatt tccattatta gtactatgat ttcaatgttt 120  
 tgaaaactag gccttcagtt ctatgta 147

<210> 6497  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-H6  
 <400> 6497

attcgcgcgt cgacggacct gcagcaatac atactggacc aattactaga gtcctgcac 60  
 gccaaactaaa ttaccaggta ctttcgtttc ttggtaatgg ttctaattgt catgagaata 120

tgatgctgcc taaattggat acatttgttt tgcttacaaa tgaagggcct agcttggaga 180  
 aggatgaaca ttggagcaag aacaagcatg gagatgatgg catgtgcaag gggaacaaga 240  
 acggagttac aagtgatgat ttcaggactt tgaagccacc ataatgggtg catgaagcct 300  
 tggacgaaat atacaagatg ccacttcata aatttcgttc cgaggctatt ttaggtgctg 360  
 cgtcacctta gtattggggc aggcccatgt tatttcgaaa tacataagta taggctattt 420  
 ttagagtccg tatgtgttgg g 441

<210> 6498  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-H8  
 <400> 6498

cgggggacgg acggggcggc aactgttgca gccgcaatgt tcccagcatt tgcgagccag 60  
 atacagcgaa atgccagagg tagctagcgc ataatagtgc actagtagta gtacacttgt 120  
 atcagcttca gcaaacgatt ccctattccc aagaaattgc acgtatatgg agagttgagg 180  
 caaagaacct gtttcagcag tctccctaaa cccaaaaaat tatctcctca agtagtggag 240  
 agttgcaacc ctccccataa attttcaatg cttgccatgt cagtgcgccg cctccattga 300  
 ccgccgcgcg actggaccac tgccgcctgc tggaacatca ccgctggcgc cggacttctg 360  
 tgctgccgtt gctggacatc cgccgcgccg ccagctgtca tcgcagcctt gacgaaaaga 420  
 tgcaaatggg agagagggga aaaa 444

<210> 6499  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-001-Q1-E2-H9  
 <400> 6499

ggtccgaata tccgggtcga cggggcgcca actgttgcaag ccacaatgtt cccaccatth 60  
 gctagccaga cacagctaaa tgccagagct agctagcgc taatagtgc ctagtagtag 120  
 tacacttgta tcacttcag caaactactc cctattccca agaaattgca cgtataggga 180

gagttgaggc aaaaaacctg cttcagcagt ctccctaaac ccaaaaaatt atctcctcaa 240  
 atagtggaga gttgcaaccc tccccataaa ttttcaatgc ttgccatgtc agtgcgccgc 300  
 ctccattgac cgccgcgcca ctggaccact gccgctgtct ggaacaccac cgctgccgcc 360  
 ggactttctgt gctggcgctt ctggacatcc gcgcgcgcgg caactgccac cgcagccttg 420  
 acgaaaagat gcaaattgaga gagagg 446

<210> 6500  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E1-A3

<400> 6500

gggctgccaa agaccaaagt gaggaggtcg ccaaggacca atcttcatag ttcttgttcc 60  
 tccacggcgt tgtatccgct gttgtatctg atgctcaaag tagatgtcat gtggcggcgc 120  
 cctcccgtgc tgcgaaaccg aaactgactt ggcctgagtt tcgtcgttgt tccatgctcc 180  
 cggctatcct agatggtagg taatgtcgga acacaggggg atgggtggggc agtgttgtta 240  
 ccatatgatc caaggggtac cttttctttc ttcatgctga accttgtact gtgtagcttc 300  
 tatgctggtg tttcatgcta gtgattttta gcagtaaatg catgtaacct gactatttga 360  
 atgatttgaa caaagttgtg cgaaaaaaaa aagaaggngg ag 402

<210> 6501  
 <211> 201  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-A5

<400> 6501

aagtgagtcg tattagtgga caatcctgta taagtcttgt gccgccatgg cgttttatca 60  
 cgcagttgtc gtcctatgtc aaggtatatg tcatgtggct gcggactccc gtgctgcgaa 120  
 accgagactg acttggcctg aatttcgtcc ttgttccatg ctcccggcta tcttgcacgc 180  
 taggtagtgt cagcacacac g 201

<210> 6502  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-B1

<400> 6502

cgacggggac ccataataat aaaactcgga tgacaacact ttctcaaaat aatcataaca 60  
 tgatattaca aaatgggtatc tcgctagccc tttctaagac cgcaaaacat aaatgcagag 120  
 cacctttaaata gatcaaggac tgactaaaca ttgtgattca tggtaaaaga gatccagtca 180  
 agtcataccc aatataaacc aaaagtaatg aatcaaaatg acagtgttct ctccagcggg 240  
 tgcttttaata aagaaggggtg atgactcaac ataaaagtaa atagataggc cttttgtaga 300  
 gggaagcagg gattttaga ggtgccagag ctcgattttg aaatagagat agaataacat 360  
 tttgagcggc atactttcgc tgtcaatgca acaactatga gatggctgta tcttcatac 420  
 tacatgca 428

<210> 6503  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-B11

<400> 6503

cggggaattg tgacaaagtt gagggtttca tgggcccctg acgtatatga tcctcctgtt 60  
 acttctgact cacacacagt gaagccgcac cagagaagtt caaggaagag ccactacaaa 120  
 tacaagcccc caaagggcag cagcagcagc agccgcacta gcagtggcag caaaaaggac 180  
 aagaagcatt ctaccacag cagcagcagc agcagtaaaa gagataagaa accttcccac 240  
 cgcagtagca atgggtggcag cagcagaact gacactagt atcctcacca tcggaaggca 300  
 tatggcagca gcattaccag cagaactgat actagtgttc ctgaatatca taagttatcg 360  
 ccgtggcagc caccggctag tgccgcagtg gaagaagcca tgccccctgt acctgt 416

<210> 6504  
 <211> 339  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-002-Q1-E1-B12

<400>      6504

accggtccta gattcgcggg ccgacagaag acgacaaaag cggatgaattg tgactaagtt    60

gactgtttca tgggcccctg acgtatatga tcctcctgtt acttctgact cacacacagt    120

gaagccgcac cagagagggtt caaggaagag ccactacaag tacaagcccc caaagggcat    180

cagcagcagc agccgcacta gcagtggcag caaagatgac aagaaacatt ctcaccacag    240

cagcagcagc agcagtaata gagataacaa accttcccat cgcaatagca atgggtggcag    300

cagcaacact gacactagtg atcctcacca tcggaatgc                                339

<210>      6505

<211>      262

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-002-Q1-E1-B3

<400>      6505

ctcccggttc gaacgggtcg ataactcttt ctttagcagc attgaaatcc tcttgaacct    60

ttagggaatg ccgctgcagt ctactaaaga aatcaaacag acccaactgc tcaactacaa    120

atttcgtagg agtaatctgt cgcacacatg cacctcatal cgagggtaaa tgattcaaaa    180

tgattgacga agctaaaatc taaagacaac ttaagattac tgaaaactgc ccaaagcaat    240

aatatgactg agttgttaga tg    262

<210>      6506

<211>      435

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-002-Q1-E1-D1

<400>      6506

acgggttatc ttggagtatt accatctttt atgtcaagga tgttgtgagg actgctccac    60

ctcttaaaga attcttggtg ttgtgatact tctcaccctc accattcttt cttggtccgc    120

gtgttgattc taaccgggat accaacacgt gaaccatgct gcttggattc tgtacttcta    180

gcaaccctat tgctttgaag ttaatggtca acatttcac cttagaccat tggttattga 240  
atcaccattc taacattgat cctgctacct aagcccatat ttcgggtgca cttttcaacc 300  
agtgattaat tgtggtatgt ttccctcgag tatacatcat tatatcattt gatctgttaa 360  
atgttatctc cttgttcaca taattgtgga aatccacott tttgtgaatc tcaatgaatt 420  
gtcactgagc ccac 435

<210> 6507  
<211> 184  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-002-Q1-E1-D3  
<400> 6507

cgggcacaaa caaaggtggt cacaaggaac cacaatagta ttccaagcac tatectttgg 60  
cactatcatc ctgtacataa gcaaggcaac cccagtcacc aatctatacc tactttgtaa 120  
ggggagaagg tttcttactg ctgaattttc atccgttaat ttcgtttgtc catcacggta 180  
acaa 184

<210> 6508  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-002-Q1-E1-E2  
<400> 6508

attccaggtc gacgggtgct aatctcatgg taagtaatga cattacataa gaaagattgt 60  
aagcagtaaa atttattgaa agttgacgaa catagcattg gtcaatgatg catttcatga 120  
aagaaattaa taagggaaga caagattcac atgcaaatat accgtcttgg acttctttta 180  
tgattgtgag ccccatthaag tatttttatgt caaattattg acgttggaca aggaagacaa 240  
cataatgatt tatgtttgtt catattcaca cagaagttac tagcaaaaaga gcccggtcgt 300  
tgcaacggga gagaaaacat aacacacact cttaaccga caaccatcac ccaagactac 360  
aatatgtcca tcccctttta tttttcgaga tatcatattt gtg 403

<210> 6509

<211> 324  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-002-Q1-E1-E3  
  
 <400> 6509  
  
 acgggtccgg cgcgatggc gctcttcagc gaccccgga tgtacgtcca ccccatcaac 60  
 gtggaggcgc tggcggagtc gtagtgtgga ggaccgccag cgatctggcc gtgtgtgctt 120  
 aggacagttt ttatcgaacc aaaaacttaa tttccaaata gccgcctcaa agcatatctt 180  
 ccaacaaatt ctgagttttt ttacgttgc atttttatcc taaaactttc cttttgttat 240  
 ttctcccatc ctgttgcgta tgtaaatttc acttccgcgt acatttttaa aacatttcaa 300  
 ttgtgaatgc acgaaatcaa tttc 324

<210> 6510  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-002-Q1-E1-E4  
  
 <400> 6510  
  
 ttccagggtcc acggggctgg tggaggctct atggttatca tgttgcgaaa atccagtttt 60  
 tccctacaac aaaggaatat attttattta actacaatgt ttgttgaaaa acatttagaa 120  
 tggtaacccc atctcaatcc caattaataa tcaataaccc cacaatttaa ttaagtaaag 180  
 tgatgagatc aacatagtaa ttcaagcacc agacactcaa gatgtccata accgggggaca 240  
 cggctaccat cattagttaa tacactctgc agaggtttgc acacttttcc ccacaagact 300  
 cgatctcttg cattgtattt cacgcactgc atggtgtttg agaaatggat gatctagaca 360  
 cagtctttcc gaagaggtcc ccttaaccga tag 393

<210> 6511  
 <211> 245  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-002-Q1-E1-F6  
  
 <400> 6511

gggtccacgg ggcactcgca tgccacgatg ctgactgtga tgaccattaa gctgatactc 60  
gctctttctcg gcgtacgcat cacactagcg tgacttgtga agatatcaag tgcagcatgt 120  
aacaggggca gttagcctgt tctggaccaa tgagtgtatga gtaatctgct gggatattgt 180  
tcaggcggttc atgtgtatga ctcaaaataa tgagtgtgtt tcctttccac acttagcgat 240  
ataaa 245

<210> 6512  
<211> 461  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-002-Q1-E1-G1

<400> 6512

cgctgctgn gtacggccca gaattccgag tcgacgggaa cgtcactcag aatatggccc 60  
tcaagctaag gaacaccgac actggcgagc tcatcatgca cctggagtgg gttaacctcc 120  
ccccaggcat gtcgcggtga tttgatttga tttgcagagg gaggccagct attgtctgcc 180  
ttttgtgatc gtaatgttgc ttcctctata tatgagctat gaaaataatt aagcgatgcc 240  
tatctcattc ttacataac acccaccgta atgatttgtg gatctcacca ggatggtgcg 300  
tatataatat gagcaacgtc gtggtgagat cgcgagatca tcacagtggg tgctacgtaa 360  
ggcatgtgat agacttatgc tgctgggggt aatgcttgc ttcagttttg gttctgcata 420  
tgttgtatgg ctatttttat acaaaaaagt atattttgtc c 461

<210> 6513  
<211> 152  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-H6

<400> 6513

tcccgggtct acggaggaag aagatggtcg gcgtctccct ggcgcatgac tccgctgaat 60  
aacattccat tgcgataata tttgagctgc ctgccatcag tgtgcaagcc atccagaaga 120  
tcctgtcggt ctgctgggt ctgcaattgt tc 152



<210> 6514  
 <211> 272  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E1-H8

<400> 6514

cgggtcgacc gaaagcgaca acggacgata aacaggggtgt cgtactctcc tcccagact 60  
 ccactgatgc ttgctgatct ccacaacctt acaggggtct acaaaacaga ctttcccaca 120  
 atgccaaacca atgcgcgacc aaggaaggct tcatctgtgc tgaatgcttc ttacaagggc 180  
 ttcctctaga tggctctcca taacactgag acggatgttc agacctagca tctggatggc 240  
 tagtcattct ttgtagtcgg gatgggacca tg 272

<210> 6515  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-A1

<400> 6515

gtcgacgggg agccataata ataaaactcg gatgacaaca ctttctcaaa ataatacataa 60  
 catgatatta caaaatggta tctcgctagc ctttcttaag accgcaaac ataatgcag 120  
 agcaccttta aagatcaagg actgactaaa cattgtgatt catggtaaaa gagatccagt 180  
 caagtcatac ccaatataaa ccaaaagtaa tgaatcaaaa tgacagtgtt ctctccagcg 240  
 ggtgctttta ataagaaggg tgatgactca acataaaagt aaatagatag gccctttgta 300  
 gagggaagca gggatttgta gaggtgccag agctcgattt tgggatagag atagaataac 360  
 attttgagcg gcatactttc gctgtcaatg cgacaactat gag 403

<210> 6516  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-A2

<400> 6516

ttcacgggtc gactatcacg atgtacgggg tcttgctcgc aatgatccgc atctccatac 60

tcagcgaaaa tagccgaacg aagatgtagt gcagcggatg aaggttaaac atagcaaaga 120  
 cgatcatcaaa ccgcaggacg atcgtacccc cgatgtcgcc atccacaaag cccttgccct 180  
 ctggcacctt ggccacgaaa accgggtatg ccacatcctt ctctctgaga cgccgcttct 240  
 ccaaagaaag aacactgtcg tgcagactcc gcatagcacc ggttgcagca ttgagcatat 300  
 ttggtggtag catcgcccta cccgccacat gcaccctcct cgagatatcc tgcggtgaag 360  
 gtggcccgtc ctgagcacgg atcgtactcc gtgcgggctg gctcgcaccc ttcgtag 417

<210> 6517

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-A3

<400> 6517

ggccagaag tccaggggtg ttgccaagga ccaaagtgag gaggtcgcca aggaccaatc 60  
 ttcatagttc ttgttcctcc acggcggttg atccgctgtt gtatctgatg ctcaaagtag 120  
 atgtcatgtg gcggcgccct cccgtgctgc gaaaccgaaa ctgacttggc ctgagtttcg 180  
 tcgttgttcc atgctcccgg ctatcctaga tggtaggtaa tgcggaaca cagggggatg 240  
 gtggggcagt gttgttacca tatgatccaa ggggtacctt ttctttcttc atgctgaacc 300  
 ttgtactgtg tagcttctat gctggtgttt catgctagtg attttttagca gtaaattgcat 360  
 gtaacctgac tatttgaatg atttgaacaa agttgtgctg 399

<210> 6518

<211> 113

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-A4

<400> 6518

gagtcgtagt agctgatggt gctgttggtg gtggtgatgc tgttgctgtt gctgatggtg 60  
 ctgttggttg tggatgatgt gttgctgttg ctgttgctgc ttcgggggtt cgc 113

<210> 6519

<211> 89

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-A5

<400> 6519

gctgatggtg ctgttgttgg tggatgatgct gttgctgttg ctgatggtac tgttgttggg 60  
 ggtaatgctg ttgcagttgc tgttgctgc 89

<210> 6520  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-A7

<400> 6520

cccggtcga cggggagttt atccaggttc gggccgcaag tgatgcgtaa taccctactc 60  
 ttactggttt gtgtttatct ggtgttcttg gactagctac aaagtgtgcc ggttccaaaa 120  
 agttcgaatc ctctccagt acgcctcggg cctcctttta aagccaaagg ggtcgccaca 180  
 gtggcacaca ggaggtggaa agtttgtact gtatacaagt ctatcgcttg gcaccgtagg 240  
 aaaaaacaca tttaatgcgc tgccgacgtg cctcttact ttactgggga cgacaaggaa 300  
 gctcgtccca tccgccgccg ctctgtctcg ctctgacgcg cgtccaggct gactaggcat 360  
 gcagcgccat gctggttggg tgctga 386

<210> 6521  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-B1

<400> 6521

gtcgacgggg agccataata ataaaactcg gatgacaaca ctttctcaaa ataatacataa 60  
 catgatatta caaaatggta tctcgctagc ctttcttaag accgcaaac ataaatgcag 120  
 agcaccttta aagatcaagg actgactaaa cattgtgatt catggtaaaa gagatccagt 180  
 caagtcatac ccaatataaa ccaaaagtaa tgaatcaaaa tgacagtgtt ctctccagcg 240  
 ggtgctttta ataagaaggg tgatgactca acataaaagt aaatagatag gccctttgta 300

gaggggaagca gggatttgta gaggtgccag agctcgattt tgaaatagag atagaataac 360  
 attttgagcg gcatactttc gctgtcaatg gaacaactat ga 402

<210> 6522  
 <211> 348  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-B11  
 <400> 6522

cggggaattg tgacaaagtt gagtgtttca tgggcccctg acgtaaatga tcctcccgtt 60  
 acttctgact cacacacagt gacaccgcag cagagaagtt caatgaagaa ccactacaaa 120  
 tactagcccc catatggcag catcagcagc aaccgcacta tcagtggcat cagaaaggac 180  
 aagaagcatt ctcaccatag cagcatcagc agcagtaaaa gagataagaa agcttcccat 240  
 cgcagtagca atggtggcag cagcagaact gacactagtg atcctcaaca tcggaaggca 300  
 tatggcagca gcattaccag cagaactgat actaatgttc ctgaatat 348

<210> 6523  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-B12  
 <400> 6523

cggggaattg tgacaaagtt gagtgtttca tgggcccctg acgtatatga tcctcctgtt 60  
 acttctgact cacacacagt gacaccgcac cagagaagtt caaggaagag ccactacaag 120  
 tacaagcccc catatggcag cagcagcagc agccgcacta gcagtggcat cagaaaggac 180  
 aagaagcatt ctcaccacag cagcatcagc agcagtaaaa gagataagaa accttcccat 240  
 cgcagtagca atggtggcag cagcagaact gacactagtg atcctcacca tcggaaggca 300  
 tatggcagca gcattaccag cagaactgat actagtgttc ctgaatatca taagtta 357

<210> 6524  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-B3

<400> 6524

tagccgtcct aaattctagg gtccacgggg tctcactggt ccatactctt ttcttttagca 60  
acattgaaat cctcttgaac ctttagggaa tgccgctgca gtctactaaa gaaatcaaac 120  
agacccaact gctcaactac aaatttctta ggattaatct gtcgcacaca tgcacctcat 180  
accgagggtta aataattcaa aatgattgac gaagctaaaa tctaaagaca acttaagatt 240  
actgaaaact gcccaaaaca ataatatgac tgaattgtta gatggaacca aaaaggaaat 300  
tgtatttatc aagtttatta atctgcatga actaagacag tctccgatat tcaagaatgt 360  
agtggctctt gatttttaat cagagataac aaatgaccag atgcgtacaa t 411

<210> 6525

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-B4

<400> 6525

attcacgggt cgacgggggtc tcaactggtcc atatctcttt ctttagcaac attgaaatcc 60  
tcttgaacct ttaaggaatg ccgctgcagt ctactaaaga aatcaaacag acccaactgc 120  
tcaactacaa atttcttagg attaactctgt cgcacacatg cacctcatac cgagggttaa 180  
taattcaaaa tgattgacga agctaaaatc taaagacaac ttaagattac tgaaaactgc 240  
ccaaaacaat aatatgactg aattgttaga tggaacaaaa aaggaaattg tatttatcaa 300  
gtttattaat ctgcatgaac taagacagtc tccgatattc aagaatgtag tggctcttga 360  
tttttaatca gagataacaa atgaccagat gcgtacaata gagggaagga gaagatactc 420  
acgtgtgttag cgcgcttgaa ttt 443

<210> 6526

<211> 188

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-B7

<400> 6526

gacggacggg accaatgctg ctgctgctgc tgatgggtgct gttgttggtg gtgatgctgt 60  
 tgctgttgct gatgggtgctg ttgttggtgg tgatgctggt gctgttgctg ttgcagcggc 120  
 ggcagcttct caaaacgcag aaactgcaac accaaaaaca ccagaaaatg gagacagaga 180  
 atacccaa 188

<210> 6527  
 <211> 172  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-B8  
 <400> 6527

tcgacgggac ggtaccaatg ctgctgctgc tgcagatggg gctgttggtg gtggtaatgc 60  
 tgttgctggt gctgatagtc ctgttggtgc tggcgatcct gttgctatta ctgtcgtctc 120  
 tgcaccgact tatcaattca gtgatcagtt atctcaacta acatgaccat tt 172

<210> 6528  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-C1  
 <400> 6528

gtcgacggga gctatatttt tattcaccac atgatatgtg ttttgcttgg attttcattt 60  
 cattttattt tgtttttctt tttgtttgaa taaataccaa gatcttaaatt tcttaaattg 120  
 tagagagtct tcacatagtt gcataattat tcaactactc attgatcttc acttatatct 180  
 tttggagtag tttgtcattt gctcttgctg ttcacttata tctttttaga gcacggcggt 240  
 ggttttattt tgaagaaatt gttgaaatct catgcttcac ttatattatt ttagagagtct 300  
 ttagaacagc atggtaattt gcttgggtta taaaattagt cctactatga tgggcattca 360  
 agatgggtat aataaaaact ttcattgtaga gtgcattgaa tactatgaaa ag 412

<210> 6529  
 <211> 161  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-C12

<400> 6529

aactggtacc ctgcagtacc ggtcgaaatc cagggtcgac gggggggggc gccccagcg 60  
ggggcgcccc ccaatgtctt cgaaacggtg ttggccccct ggtcttcac cttatccaag 120  
aattttcctt aatttttcca aagggtttcca acgaatttca a 161

<210> 6530

<211> 75

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-C2

<400> 6530

ggtagcaatg ctgcagctgc tgctgatggt gctgttggtg gtggatgatgc agttgctggt 60  
gctgatcgtg ctggt 75

<210> 6531

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-C3

<400> 6531

gtccacgggg tctcactggt ccatatctct ttcttttagca acattgaaat cctcttgaac 60  
ctttagggaa tgccgctgca gtctactaaa gaaatcaaac agaccact gctcaactac 120  
aaatttctta ggattaatct gtcgcacaca tgcacctcat accgaggta aataattcaa 180  
aatgattgac gaagctaaaa tctaaagaca acttaagatt actgaaaact gcccaaaaca 240  
ataatatgac tgaattgtta gatggaacca aaaaggaaat tgtatttatc aagtttatta 300  
atctgcatga actaagacag tctccgatat tcaagaatgt agtggctctt gatttttaac 360  
cagagataac aatgaccag atgcgtacaa t 391

<210> 6532

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-C4

<400> 6532

gtccacgggc gcgggcgag acggaggcgg cgccacatc aacctcaagg tcaagggcca 60  
 ggatggcaat gaggtgttct ttgcaccaa gagatctacc cagctgaaga agctgatgaa 120  
 tgcctactgc gaccgccagt ctgtggatat gaaagctatt gcattcctgt ttgacggtcg 180  
 caggctccgt gccgagcaga cccctgatga gcttgagatg gaagatggcg acgagatoga 240  
 tgccatgctc caccagaccg gagggcgctt cctccacgc gcctagaaga agccgttgag 300  
 agtctgctt gttgtcggc tacaagactc tgattcatca ttagagagca catgaacg 358

<210> 6533

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-D1

<400> 6533

gtcgacgggt tatcttggag tattaccatc ttttatgtca aggatgttgt gaggactgct 60  
 ccacctctta aagaattctt ggtattgtga tacttctcac cctcaccatt ctttcttggg 120  
 ccgcgtgttg attctaaccg ggataccaac acgtgaacca tgctgcttgg attctgtact 180  
 tctagcaacc ctattgcttt gaagttaatg gtcaacattt catccttaga ccattgggta 240  
 ttgaatcacc attctaacat tgatcctgct acctaagccc atatttcggg tgcaccttcc 300  
 aaccagtgat taattgtgta tgtttccctc gagtatacat cattatatca tttgatctgt 360  
 taaatgttat ctcttgttcc acataattgt ggaaatccac ctttttgtaa atctcaatga 420

<210> 6534

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-D3

<400> 6534

ttcacgggct cacgggcaaa aacaaagggt gtccaaggaa ccacaatagt attccaagca 60  
 ctatcctttg gcactatcat cctgtacata agcaaggcaa cccagtcctt caatctatac 120



ctactttgta aggggagaag gtttcttact gctgaatfff catccgttaa tttcgtttgt 180  
ccatcacggt aaaaaaaaaa aaaaaaaaaa aaaaaataaa aaaaataaat aaacataaaa 240  
aaaaaatcaa aaaacaaaaa aaaaaatcaa cccccataaa aaaaaaaaaa aataaaaaaa 300  
aaaaggggag ccccaaaagg ttcaagcctt acttcccctt aaatgcaatt tcaaaccctt 360  
ccaaaagggc ccccaaattt aattccaggg cgtcctttt aaaaagtcct taccggg 417

<210> 6535  
<211> 360  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-002-Q1-E2-E2  
<400> 6535

ttccagggtc cacgggtgct aatctcatgg taggtaatga cattacataa gaaagattgt 60  
aagcagtaaa atttattgaa agttgacaac cataccattg gccaggagc cattccagaa 120  
agaaatttat aagggaagac cagaatcaca tgccaatata cgtccttga cctccttta 180  
gaatgtgaac cccaataagt aatttaagtc aaattaatga cgtttgacaa cgaagacaac 240  
ataatgatat aagtttggtc aaaatcacac acaaagttac tagcacaaag agaccctgtc 300  
gttgcaacgg gagagaaaac atatcacaca ctcttaaacc cgaaaacatc acccagcact 360

<210> 6536  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-002-Q1-E2-E4  
<400> 6536

ttcacgggtc cacggggctg gtggaagctc tatggttata atgttgcgaa aatccagttt 60  
ttccctacaa caaaggaata tattttatft aactacaatg tttgttgaaa aacatttaga 120  
atggtaaccc catctcaatc ccaattaata atcaataacc ccacaaatta attaagtaaa 180  
gtgatgagat caacatagta attcaagcac cagacactca agatgtccat aaccggggac 240  
acggctacca tcattagttt atacactctg cagaggtttg cacacttttc cccacaagac 300  
tcgatctcct gcattgtatt tcacgcactg catggtgttt gagaaatgga tgatctagac 360

acagtctttc cgaagaggtc cccttaaccg atagataggc cggtacacct acaatcccct 420

acatctgcta acccatcatg cg 442

<210> 6537  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-E6

<400> 6537

agtaccagtc cgtacattcc gggtcgacgg gtagattcaa atttccatta aagaaatgca 60

tggagcactt tccaagaaat aaagtcaaatac taccttatga atctatcatg cgggctactt 120

ctgaatcaag tgccaaagat ggcactccgt tagattaacc ttccgcttta ggccaaccta 180

ggggcggttaa aataatagcc ctagttggga ggcaacccaa ttttcttcat gtcctttgtt 240

ttgggtccctg tttagtgtta aattttgttt ccactttcta tttagatgtg tttttatctt 300

ttaattagtg tttgtgccaa gtagaaccta taggataaac tatgatgata gtttatttga 360

ttctgtgaa aaacataaac aattcaataa atcacagaga cgtacttttg tattgattct 420

ttttgtgtgt gatcaataaa caaattgtcc 450

<210> 6538  
<211> 105  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-E7

<400> 6538

gggtaaattcc aactttcctc gtatgacgtg catggagcac tttccaagat ataaagtcac 60

agttacctgt acaatctatc atgcgggcta cctctgagtc aagtg 105

<210> 6539  
<211> 425  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-002-Q1-E2-F2

<400> 6539

gtcgacgggt aggcaattgc tctagtactt ccattatatac ttttagagca tggcgggtggt 60  
 tataaatagt tgcactctca tgcttcactt atatcttttt gagagttgat aatagtaatg 120  
 acaattagtg tgggttataa atttggctct aatgtgatag gtattcaagt gggatataat 180  
 acaaaccttc atgtagatca ctgaaaatga taagtttgat tccttgcaat agtttgcgat 240  
 ataaatgtgg taatatgcgg gttgtgctag ttagtaattg tggtttagta agaataattg 300  
 tgtaaggtt cgtgattccc gaagcatgca cgtatggctc ctggttatgc tatgaagttg 360  
 catcatgatt tattattgat tgtcatcctt atgagtggcg gtcagggatg agcgatgggc 420  
 ttttt 425

<210> 6540  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-F3  
 <400> 6540

ttcacgggtc cacgggggct caacaatact atggaacttc ccgacaagggt gaagccagtg 60  
 caggaaatca gggaaatgcaa tcaccctaca gatccagttc gtttcctgca cctcagtatg 120  
 cactgcagag agagaatgtt tttcctgaga gacctgatca accggaatgc atatactaca 180  
 taaagactgg agattgtaaa tttggtgcag tttgcaaatt ccatcatccc cgtgtgcgtt 240  
 cacagcctcc ccagactgt atcttgagcc caatgggtct tccattacgc ccaggggaag 300  
 agctctgcaa gttctattct cgctatggca tctgcaagtt cggcgtaaac tgcaagttcg 360  
 accacccgat gggggctccg atgggggtct acgcgtacgg ctactccgcc tgggggtcgc 420  
 ccaacgcgcc c 431

<210> 6541  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-F4  
 <400> 6541

gtcgactgcc cggatgccga agccttagcg gccttcaagc acagtgtctg agatgaatgg 60

ctcgccaaac acctcggcca ggaaaagccg aggacaatgg cagccttaac aagcctcatg 120  
 acccgctttt gcgcggggcga ggatagttgg ctagcccata gcggcaccag tgaccagga 180  
 acatccgaag tcagagatgg caacggaaat ccgtgacgca ataaaaaCaa gcgtcgaaac 240  
 aatgaaaaca gccagataa cacgacagtc agtgccggat tcaggggctc tcgaccgggt 300  
 caacggaaga agccatttaa aggcagtaga gatggaccgt ccagcctgaa taagattcta 360  
 gacaagttat gtcagattca tggcaccccc gaaaaacctg caaatcacac ccatagttag 420  
 tgctggggtt 430

<210> 6542  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-G8  
 <400> 6542

ccgggtcgac ggggagcaca agaaggacgg cgagcacaag aaggacgggg agcacaagga 60  
 gggcatgatg gagaagatca aggacaagat cagcggcgac ggccacggcg acggcaagaa 120  
 ggacggcgac cacaaggaga agaaggacaa gaagaagaag aaggacaaga agcacggcga 180  
 gggccacaag gacgacgacg gccacggcag cagcagcagc gacagcgaca gcgactgagc 240  
 cagctccggc cgcgctccgg cagcagcgtg cagtgtaggc gagatcgatg aacgcttggg 300  
 agaagtgtgg catacatata tgttgcaggg tttggagcgt gtggtagcat atgtatgtaa 360  
 tgctgacat gtctcatgga tcttgtgatg taaaataatt acccggtgc actgcacggc 420  
 acg 423

<210> 6543  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-H2  
 <400> 6543

ttgctcaagt ttaatagtaa ataatttata tagcctctgt tttggttggt ttttttgtgt 60  
 ttaattagtg tttgtgcaa gtagaacgt tgggaagact tggggaaagt ctttttgatc 120

ttgctgtaaa aaacagaaac tttagcgctc acgagaatct atgccatttt tatttggaag 180  
 gtgatattta gttaattatt cttgaagatg attaacagat aaattactca cttccagaaa 240  
 tttattttat aatttttggg gttccagaac gtgcgtagc tacagattac tacagactgt 300  
 tctgtttttg acagattatg tttttcttgt gttgtttgct tagattgatt aatctatggc 360  
 tagtaaaaga gttttataac catagagaaa tttggataca gtaggtttta ca 412

<210> 6544  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-002-Q1-E2-H4

<400> 6544  
 tagtcgagtg aaaactcaca atcgcaacat taccggaact aagaagcaac accggaaaga 60  
 aacaaacaat atggtaaagt cacaagcata aacatggcat gatgcacaaa caagtatgat 120  
 gcatgtccgg tttaatgagg catggcatgg caaagtgcaa caaacaacac taaaaattaa 180  
 gtggagctca atatgcaacg agttgcatat tgacaaaact tcacaacatt tatttagttt 240  
 gctctctttt aggtacgcaa taatattaaa tgttgtaaa catggcaaga ggtgaagcaa 300  
 gagaaaacta cctatctagg caagttttaa tgaggtcgga acaacanaca acaatttccg 360  
 gaaaatcctc atatgcaatt tatgaattag ctactgttct gcccaaaa 408

<210> 6545  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-002-Q1-E2-H8

<400> 6545  
 acaaggtgtc gtactctcct cccgagactc cactgaggct tgctgatctc cacaacctta 60  
 caggggtcta caaacagac tttccacaaa tgccaagcaa tgcgccacca aagagggctt 120  
 catctgtgct gaatgttct tacaagggct tctcagagat ggtcttccag aacaatgaaa 180  
 cggatgttca gacctaccat ctggatgggt attcattctt tgtagtcggg atggactatg 240

gtgagtggac gccaaacagt acgggttcat acaacaagtg ggatgccatc tctcgcagta 300  
ctacacaggt cttcccaaga ggggtggactg ccgttctggt ct 342

<210> 6546  
<211> 73  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-A1  
  
<400> 6546

tgttttgtca gcgtgtcaaa ccttaaatac aatctgttaa tcgtggatca gatttggtac 60  
cacattgggt tca 73

<210> 6547  
<211> 336  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-A11  
  
<400> 6547

taccatggtc attggcgaag ataatactgg ggaggccaag tggatgatgg ataacgtaaa 60  
gttttcagtt gaagaaccga ttgaggccgt ggcaaaaaga gaagagctgg agcaccttgc 120  
catgatttgc agatctgaag ctgatgcaat ggggaggatc actgctggaa ttctccgtct 180  
gcttaaactt gataagtctc ttgggcaggg aaccatcgaa cagctgagga acctaggaag 240  
tggaagcctg gacaacattt tctcgcctag caggttcagc aggcacaaca gttttggcat 300  
cgtaagcacc cctaggaccc ccaggagccc aatggt 336

<210> 6548  
<211> 227  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-003-Q1-E1-A12  
  
<400> 6548

gtcgacgggg aagaagatga agaggaagaa gaagaagaag aagaggaaga agaagaagaa 60  
gaagaagaag aagaagaaga agaagaagaa gaataagaag aagatgaaga tgaagaagat 120

gaagaagaag aagatgaaga agaagaagaa gaagattaag atgatgtaga agaagttgta 180  
taagaagaat gaagaagaag aagatgaatt tgattatgat gatgttg 227

<210> 6549  
<211> 337  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-A3

<400> 6549

ggtaaagaaa aagatcaatg atgcaggaag gaggaccaag gccgagatga tgaagactag 60  
gataaggatc accttgagga agaagaggac gagtaagagg acgaagtcga tgacctcgag 120  
ctgaacttga catctacgac gactccgttg agacagctca gcgtgcgaga cttgacgagg 180  
ttgaagcaag ccataaagag tgcgatcggt aggatcatct acgggagaaa gcgtgaggac 240  
cagtcaaggc agagtagaag aagaatcggc tgatgaagac gaagagtctt caatagaaga 300  
ggccgagtcg ctataccgga tgcaagaaga tcaggtg 337

<210> 6550  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-A4

<400> 6550

aaagaaaagg aaaacccggt gggattcctt ttaacaaatt cccaataac aagcaaaagg 60  
ccctccgacc tttcccaaaa aaccttgga atccggtggc ataaaaggac caaggaaagc 120  
ccaaaggcaa tgaaccatca aaataaactt tccccgaaca aaatttcaat caagcttcaa 180  
aaggacgaaa cataacttac aatttggaag caccaattgg atcgtgatgt tgaaaccctt 240  
aaagcaaaat ctaacatcgg tagcaatcgt acgtttttga atcgagtcgc gatcgaatgc 300  
agtgcacctg aagaattatt cattaaagat cagtcactga ctaatgaaaa tgtggacaag 360  
attgtcgggt acgctgtcag ttatcatctt aagcacaata aagtcgaaac etc 413

<210> 6551  
<211> 400  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-003-Q1-E1-A7

<400>       6551

gggccgacgg ggcaggatat acatcgatga tgcaggatgg ggtcccgagg ccgattcgat   60

cgagtatggg taccgggtcc ccttgggcag catacacgtc ttcacgcgca agatcgggtga   120

gcctaggcct gagctggaca tctacaccga ccccgctcag acggctcagc gtgcgagatc   180

taccaggtt aaaccggcca tgaagcgtgc cttcgttggg gtcattctac gaggagagcg   240

tgaggacgaa tcagagcacg gtaacgagac cgtcgtctat tccggcgacg agtcttcgac   300

cggagagacc gagtcgctat accggatgca agacgatcag gtgaggggtt gttccgatgg   360

cgacagtatt ccggaccccc caaggccaga tcgaccgggt                               400

<210>       6552

<211>       297

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-003-Q1-E1-A9

<400>       6552

cagctgtgat atacatcgtt gtaggggtang tagctcctgg agtcatttga ttccagtgtt   60

gtaggaaatg gcgcgatgga tgggttctag gagtttttct tttggacggg ggatgtacga   120

aactgacttg cgcgctctc tccgctcgtg ggactcgggg aaacagtgtt ccccttcgaa   180

ctgttgcct gtaggttttg gactagaatt tggaagattt atatagagaa aatgcactgg   240

cggacttga acttgaaaag aaaaatataa caaatctaa aaaaaaaaaa cgcggccg       297

<210>       6553

<211>       429

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-003-Q1-E1-B4

<400>       6553

cgggtcgacc ggagcgccat agtatctgtg acatttacag gcctgccccg aagaagggaa   60



aggcatgttc aaccaataat ataacaaggg aatcaattt tttccgggta aaactaaaac 120  
aataatgcc aagaaggtaa aagttaaggg aagggtttta tccgaaaaa ttgcaaattt 180  
tccccaatat aactgcaacc aaaagctgct gccgttggtt ggtgttaaaa tcaaagttac 240  
tgccagaatg gaattgtatc gcctggaaat caatcttttt tgtttctcca aaaaaaaaaan 300  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaat aaaaaaaaaa aaaataaaaa acaaattaaa 360  
tttatataaa ataaattaat ataaaaaata tcctaaaatt aaaattaaaa aaaaaaaaaa 420  
aagggggccc 429

<210> 6554  
<211> 176  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-B9

<400> 6554

atggattttg aaaaccatga aatttctgaa acaaagaaaa ttcacctaa gactcatcac 60  
gatgtggact ttgaagtaat tctatataat tctgagagcg taaccattt tggttgcaaa 120  
aactgggaag catthttgcaa gatgtatggt tttgatgaag gtatgcttat caccat 176

<210> 6555  
<211> 276  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-C1

<400> 6555

gggtcggccg gttggtagtt ttgatcacag tgcttcactt atatcttttg agcgtgataa 60  
tttttgctct agtgcttcat ttagatcttt tagagcatgg tgggtggattt gttttaaaga 120  
aactattgat ctctcatgct tcacttagat tgthttgaga gtcattaata gcatggtaat 180  
ttgcttaaat attaataatc ttggtattca agatatgtga aactttcttt tgagtgcgtt 240  
gaatactaag ataagtttga tgcctgaaaa ttgttt 276

<210> 6556  
<211> 321  
<212> DNA



cgcaacgtgt cgatgacggc aaccactcc aagattcgta cccgcgccga ccgcgacggc 180  
gtctccatct tcaacgccac caaagtgttg gtggaccacc tgtccatggg taattgcat 240  
gacggcatga tcgacgtggg ggccatgtcc acggccgtca ccgtctccaa caccacctg 300  
gccaccaca acgacgtgat gctcttcggc gccaccgatg ggaagganga ngacaagggtg 360  
atg 363

<210> 6559  
<211> 363  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-D6

<400> 6559

cgggaaact aaagaatcaa agagatcact ggccagcttt catgaaatta acggaatcag 60  
aattagctaa gtgaacggcc gatgaataaa cactatcact gccatgataa agaggattac 120  
cataggctgg ggccaagtgg ctacatgggtg gcccggccta cgcgggataa ggctgagcaa 180  
gagatgctgg atgcacgggt cagtccagtt acattgagct ggctccccag gtgcaggact 240  
tggtttctatg tgcattggggg agcgttggcc ccaacgacag ccaaggtttt gaacaacgca 300  
agccttaaag gagccacact aaaattactt gttgcaatag aataggctca aacaagggtt 360  
ttc 363

<210> 6560  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-E3

<400> 6560

gaatgataga agggtagag tgcgtattgt caagggactc aacattagtc ataaagaact 60  
catatacgta ttgcaatagt ctaaaagcca ttgctcagaa tgtattacgc gcatgctcct 120  
agtgggatag attggttaga aaaggccatc gctcgtcccc gaccaccact cataatgaag 180  
acaatcaata ttacaattgt gtcaccaatt catcacaag cggttcacca tacgtgcatg 240  
ctacgggact cacatacctc aacacaagta tttctactaa tccacaatca ccactagca 300

taactcta atcaccacct ttatatcgca aaactattgc acggaatcat acatatcata 360  
 ctcagcgatc tacaatttga tgtacgattt tatgactaat catgtgattg accaattcct 420  
 gtcattctctc catat 435

<210> 6561  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-E9  
 <400> 6561

ttccgggtcg acgggggtgtg ccgacggcgg gcgcccctgg tccaatggtg ccgcccggcg 60  
 catctcctgt cccatgccgc tgacgggtcc tcctcccact ttgctcaaaa tcgctaggga 120  
 gcacatcgcc gcggtccggc ccttttccat tgcacaacga catatTTTTT ttcactgcac 180  
 cgcccagcca tctcatcttc cctcaagatc ttgtatgtcg tgttgcgaga tcaagtaacg 240  
 tctccccacc aaaggaattg agtatggagg aggcgaggac gtgttcatct cccgctccgg 300  
 cgagattcag ttctgctctt ggggtttccac gacatcatga agttcctttg tgtagacaag 360  
 cacctcagca ctctagatcg ataatcctaa tacttcaaag ccaaggagta gaaaaactga 420  
 aacgacg 427

<210> 6562  
 <211> 87  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-F3  
 <400> 6562

accctaaagt agagtcgtag tacgctctct cactcagcag cttcatccca gctgcgaatc 60  
 ttgtgcacat tggatattca ctcatat 87

<210> 6563  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations

<223> Clone ID: LIB104-003-Q1-E1-F4

<400> 6563

cggttcgacc ggggacgtga gtgtgcagga cgcgacgtc tttgacgtct tcagccaggt 60  
cggttcggtg gtgtctgtgc gcgtgtgccg ggacgtcaac accaggatgt ccctaggcta 120  
cggttacgtc aacttcagca tccctgccga tgctgcaagg gcattggaaa tgctgaactt 180  
cactcctgtt aatgggaagc ctataaggat aatgtattct aaccgtgacc ccagctcacg 240  
taaaagtggg gctgcaaata tatttatcaa gaatcttgac aagtcaatag ataacanagc 300  
gctctatgac acattttctg cctttggaaa cattctttca tgcanagttg ctacagaaat 360  
gtctggagaa tccaagggtta tggttttgtt cagtatgagc aggaccaatc aacacagaat 420  
gcaatcaatg agctcaatgg gatgcttttg aatgac 456

<210> 6564

<211> 282

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-003-Q1-E1-G11

<400> 6564

gggtcgacgg gaagaacgag cgccggggcga gcaccaaact cagggggcgag aagggttca 60  
tcgagggatg cctcgccgca ctgtgctgct gctggatctg cgagatgtgc tgcgactaac 120  
cgcccgcccg gcgaggccgc tgctggctgg cacaagacct cgggtgctata gtaccacga 180  
ggaggaggag cgtatgcgta tacagagaga gaattgttct taatttcagt gcccgttgtt 240  
ttaggttcta tacagtatat actcctaagt tgatgcatgc at 282

<210> 6565

<211> 311

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-003-Q1-E1-G3

<400> 6565

actcactggc ctcatccatg atttngncaa agtgctgctg cattccagct tccgggagct 60  
tcctcagtgg gcagtcgtan gtgacacctt tcccgctcngc tgcccgttcg acgaatgcaa 120

cgatcaacttc aagtacttca aggagaacct gactaccaca acccgagatt caacaccaag 180  
 ttccgggtct actccgagng gtgcgggctg gacaacgtgc tcatgtcatg gggccatgac 240  
 gactacatgt gcctgggtgc caaggagaac aagaacaccc ttccttccgc anggctgttc 300  
 atcatcagat a 311

<210> 6566  
 <211> 104  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-G4  
 <400> 6566

cggggtcgacg gggaacgtaa tcaccatctt cgaagaggaa ggcagacggc cggacgccat 60  
 catgatcctg acgggtgaagc cagacaacat ctgcagcttc atct 104

<210> 6567  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-H12  
 <400> 6567

cgggccgacg ggtcatggca aactcccaag gcaccccgagg gtaatcttaa aggacaacca 60  
 aaagcctaag cttggggatg ccccggaagg catccctctt ttcgtcttcg tctatcggtg 120  
 actttacttg aggctatatt tttatgcacc acatgatatg tgttttgctt ggagcgtctt 180  
 gtatgatttg agtctttgct tttagtttac cacaatcatc cttgccgtac acaccttttg 240  
 ggagagacac acatgaatcg gaatttatta gaatgctcta tgtgcttcac ttatatattt 300  
 tgagctagat aattttgctc tagtgcttca cctatatatt tttagagcac ggtgggtggtt 360  
 ttattttata gaaattattg atatctcatg cttcacttat att 403

<210> 6568  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-003-Q1-E1-H6

<400> 6568  
gacgggaggt tcaagggaga gaagcgacgg agttagaagt tgtaaataatg cattgttgta 60  
tcgcgacctg aatgaaataa acgaaataat gctcttggtc aatcgtcaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaataaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaagttag cccacaaaaa aattaaattt aaaataaagt gaaaagaata 300  
ttaaaaacca ctaaaaggg cccactaaat taaattaaaa gggctttatt aaaaaactgc 360  
aaaaagggaa aaaccttggg ggaaacaaaa taaaaccctt ataaaaaaaa cccctttt 418

<210> 6569  
<211> 302  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-A1

<400> 6569  
gttatacacc atgacttcaa ggcccaaata tttgaacaaa accttgatcat atatatacca 60  
caaagccatt atgagtatat atagattatt gtataagggt acccaataga tgaagaacta 120  
attcatcagc tcaacctaac ctgggtacaa agctaattca tcagctcacc agtgatcatg 180  
cgtgttgctg aatatctcat ctatgtgcgt gttgtgtaat gagattaatg tgggaataca 240  
tcatgggcgg agtcaggatt cgaaaaanaa aannnannna aaaaaaaaaa aagcgggcgc 300  
tc 302

<210> 6570  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-004-Q1-E1-A10

<400> 6570  
gggtcgacgc gaatcgatga tgtcactgga tccggatttg gccagttcc tggcacatgg 60  
cacttcaggt gcacgatcct tccgcaggag gagaagatcc cggcaatcat ctcccgttc 120

acggtgttcc atgagacgtt catggcagag taccgtgact aaactgggtgt aacatgtgtg 180  
ggattacatg caagcctcat ggattttccc taggcgtttt tgcccgcgtt gacagcagta 240  
tcctgtagat gagacaaaat aaagcaaata catggccttg gtgtgtgata ctatatcaga 300  
ttaccagtct gatgcctttg atggtaaatt ggcaactgag aatttttatt tcaaaaaaaaa 360  
aaaaaaaaaa aaaaaaaaaa aaaaaaagaa aaaaaaaaaa aaaaaaaaaa aaaaaaagcg 420  
gccg 424

<210> 6571  
<211> 302  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-A11

<400> 6571  
aaacgcagga aaaagtgagc gagtgggaga catcaggaag cgacggagtc tcagctgtgt 60  
gtacatgttg tagggtagga gtcctgggt cttttgattc cagtgttgta ggaaatggcg 120  
cgatggatgg gttctaggag tttttctttt ggacggggga tgtacgaaac tgacttgcg 180  
gcgtctctcc gctcgtggga ctcggggaaa cagtgttccc cttcgaactg ttgtcctgta 240  
ggttttggac tagaatttg aagatttata tagagaaaat gcactggcgg tacttgaact 300  
tg 302

<210> 6572  
<211> 363  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-A12

<400> 6572  
ttctgggctc tccccctct cttcgggtaa ccccaggtt tggcaaccgg gtaaccggtt 60  
aaaatccccg ccccttgtt tcgcggtcct ctggttggtt gtaatctcca ggcaaacgtt 120  
cggtttgggt tgtgctgcc cttataacgt tgatgtccat cgaggccaat ttccggtggt 180  
ttgtcctcct cggttcggt gacgttgga ccgtcttctg aacctccctg ctttggttta 240  
agtcccggt aatctatctt gctttgact ctgacctga ttgggtccag gctaaacca 300



tcatgctctg attgccaata tgttttatgg tcttgggcta accattttta acccaaatgc 360  
cga 363

<210> 6573  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-A3  
  
<400> 6573

accggaagcc gaagccgtcc cacggcgacg acgaccggcc cagctacggc cgcaagatga 60  
acgacgacga cgacgacgac gacaggcggg cgcggtacaa aaagcgcgac gacgacgact 120  
atgatgagag gaagccgcgg tacaagaagc acgacgacga cgatgatgga cacgatagga 180  
ggccgcggta caagaaacgt gacgacgacg acgatgatga cgatgacaga aagccacgtt 240  
acaagaagcg ctacgacgac gacgacgatg atgatacgaa gccacgttac atgaagcacg 300  
atgattatga tgacgacgac gatgatagga agcagcgtcg cggaacaac cgccgccgcc 360  
acgatgacga tgactgatta tgacatgagt ttaagctgac gct 403

<210> 6574  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-A5  
  
<400> 6574

cgggtcgact gcacacagca ccgtcatacc atttgacgac aacataaact tccacaaggt 60  
tatcgcggtt ggaattgcaa ttggagcggg tatgcatacg gttgttcacc tgacctgcca 120  
cttccaaggg ctggtctcct gcccaagtga caagttccag gagaagctgg ggcccttctt 180  
caactatggt caaccaacat ggggaactct gttcgcgagc actccagggt ggactggtat 240  
cctcctgggc ctcataatgt cattctcctt tacactggcg acaacctcct tcaggaggag 300  
cgtcgtgaag ctgccatcgc cactgcacca cctggctggc ttcaattcct tctggtatgc 360  
ccaccacctg ctggtgtttg catatatcct tctggtgatg cactoctact ac 412

<210> 6575

<211> 335  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-004-Q1-E1-A9  
  
 <400> 6575  
  
 ttcacggagc cgggtgtacta tggcgtatct cttgtcataa gggcaaatta ctttaaaatg 60  
 ttgggaaaga gctcctgggt catttgattc cagtgttgta ggaaatggcg cgatggatgg 120  
 gttctaggag tttttctttt ggacggggga tgtacgaaac tgacttgcg gcgtctctcc 180  
 gctcgtggga ctcggggaaa cattgttccc cttcgaactg ttgtcctgta ggttttggac 240  
 tagaatttgg aagatttata tagagaaaat gcaactggcg tacttgaact tgaaaagaaa 300  
 aaatcaacaa aacataaaaa aaaaaacgcg gccgc 335

<210> 6576  
 <211> 328  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-004-Q1-E1-B1  
  
 <400> 6576  
  
 ggaagatcaa gctcaaggcg gaaggaaacc cccgccgcgt cggtagacga gataatgccg 60  
 cggaaggcat tggcgcatc atggtttaga tatgaaagtt ttggacaccg accggaactc 120  
 agtcgagagc ttatatatga aaactagtga gagagagaag actatattta tgcaattaga 180  
 agagaactat atacattgtt tttcccctaa gctcaataag gtctgtgtcc tttgtggact 240  
 gcgtttcttc tttgtagaga cagaacatat aatactgagg attgcagtca aatggaaatt 300  
 aaattcaggt ttgatacttt aatatacc 328

<210> 6577  
 <211> 265  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-004-Q1-E1-B2  
  
 <400> 6577  
  
 gggccaacgg gaaggacacc ttgtggcccc ggtgaacaag ttaaaccgac gttaccaaca 60

agccaactca acttcggggt cctgtaatgc aagcatgcat gcacaaataa atccttcaag 120  
 ttcaagggcc aagatttga ccaataattc aactccttgg ttccaaataa cccaatggat 180  
 aattaaatcc aatacaacca aaatccaata acctttaaat tgccccatta tacccaaaat 240  
 gatgttttcc acgagcacat atgat 265

<210> 6578  
 <211> 334  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-004-Q1-E1-B3  
 <400> 6578

gggccggccc gagcagttac gaaagcgaat gaagctgagg ttgcacggac aagcttatgg 60  
 aggtgtcagt atgcacgcac acgtccctga tttggagcac gcctctggcc tggtaggatt 120  
 ctcgctctgc ctgcacctca agggcggttcg tctatctgtg tcatgctcgg gacgatgcac 180  
 taatgcaggg tgtggttctt cagatcttct tttgtctttt cttgggtatgt atatctctga 240  
 atcttgtgag ccgtgatttt catgctgccc attgtgtcat gtataatgat tcttcttatt 300  
 atttttgaat ggcataatta ttcttattga ggcg 334

<210> 6579  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-B4  
 <400> 6579

gggccgacgg gatattttta tccgcaaaag aaaagggggt tggcttgaac cgcttggtat 60  
 aaaattaacc ttggctttta agttaaccac aaccatcctt gcttaataca ccttttggga 120  
 aaagcctatt tgattagaat ttcaagaata cccaaggtgc ttcacttaaa ccttttgagc 180  
 ttgatagttt ttgctctagt gntcaccta aatcttttag agcacggtgg tgactttatt 240  
 ttgaagaaat tactagtctc tcatgcttca cttatatatt tttgagagtc ttttagaata 300  
 gcatggtatt ttctatgggt ataaaattgg tcctagaaag gtaggcatcc aagttgggta 360  
 taataaaaac tatcatanga agtgaattgg atgctatgat caatttgata attgataatt 420

gtttggagat atggaggtan tgatataaa

449

<210> 6580  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-B9  
  
<400> 6580

attccccgggc cgacgggggt gcagaacaag gacgacccta ccatcttggc gtgggagctg 60  
atgaacgagc ccagatgcat caccgatccg tccggttaaca ctctgcagcg ctggatccag 120  
gagatggctg ggtacgtgaa gtcgatcgac aggaggcatc tgctgaccgt cggcaccgag 180  
gggttctacg gcccgcagag cccaccggag aagctcagcg tgaatccggg gcactggttc 240  
aacaactacg gctcgcactt catccgcaac tccaagatct ctgacatcga cttcgctctc 300  
gtccaccttt acccggacac ctggctgctg caccggaatt tggaagagaa gctcaagttc 360  
gtgacgcagt gggtagctc ccacttcgag gacggcgaca cggagctcgg cggcaagccc 420  
gtggtgctca 430

<210> 6581  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-C10  
  
<400> 6581

ctcaacaacc aacgcgaaca acggaaagaa gatggcgcaa tccgtcctcc ggttcctcca 60  
acaaaggtag aatgcaatcc gctcccccaa gaaaggccgt taatttaaca atccgctggc 120  
aacggaaagc caacctcccg taaattcctc gccgtccttg ctggccactt tcgacagcct 180  
tgacatcttg gacgcctgca atggcctcct gctctgccgc tgctggaagg ctgctgatcc 240  
cctggaattg gattatgttg ttgcaatcc caccactgag aaaatggtgt ccttcctctg 300  
catcgactgg tccagcaaag tgagcgtcgc tcgcctcgga ttgaccgg ccgttacttc 360  
ccacttccat gtattcgagt tcatag 386

<210> 6582  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-C12

<400> 6582

```

gggcccaaccg gaagttgaag gtaccggtgg gtggcctccc aatcaatcaa ggaaacaatt 60
tggaatggct aacgggggggt aatggttaac cggaatcaa taaggaattg gtgacaaaaa 120
aaccattaaa ggcattagaa ttacctaagg agcaaaacca aaccttgtgg aggatcccat 180
caaccctatt ctgcacatt gcttcgatg cgacgcttaa gccattgggc cactttgctg 240
aagcacccaa tgctcatagt tatccgcta tatgtgccg ggagtatgtg gaacaagagc 300
tctcgcgat caatctgaaa gggaagggtt cactttangt gcacacagac cgccgattaa 360
tctggtgact tgggtgactg ttggtctgcc ttctatggtc agaatgcgaa ttgcgataat 420
ccaagctgat 430

```

<210> 6583  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C2

<400> 6583

```

gggccgaccg gaaccaagg ggatccacta aaacctttgg gccaaaaaag tttgccccaa 60
tggtcaact aaaaatttta aaacaacggc gggggtttaa tttgccaaaa ccaatggtcc 120
cccaagcctc aactaaaata atttgagagt cttttaaaac aacaatggaa ttgctaaggt 180
ttaaaaattg ggcccagaat gatgggcatc caagtttgggt ataataaaaa ctatcataga 240
aagtgaattg gatgctatga tcaatttgat gcttgataac tgttttgaga tataaaagtg 300
gtcatgttag agtcatgcta gttgggtaat tatgaatttg agaaataccc gtgttgaagt 360
tggcaagtcc catagcatgc acgtatggta aaagttgtgt aataaattta ttgcatgggg 420
tgctcttttg attg 434

```

<210> 6584

<211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-C9

<400> 6584

```

gggtaccagtc tagaatcccg ggccgacggg cggttggagc caccaaccgg gactaaaggg 60
cctcctgtct gtactcgag caccggccac gtggaggccc atctgtcccg gttagtataa 120
gaaccgggac gaaaggccta ggcattggta acgacccttt agtcccgggt cccaaccgg 180
gacagatggg cttatgaac cgggacaaat gacccttttt ctactagtgt taaaagcca 240
gtaggtcaca ctgaattttt gatgtgatat ggccacagct atcatgttgt aatatcttct 300
aacctgaaca cgatttatac aacttgaatt taaaatgta cattaacgga tacaaaaatt 360
agctgatatt ccctgtaatt ttctcttttc tttccaaaaa gggtgtatgt ttgcaagcac 420
ttctgcttat tattaactgg ta 442

```

<210> 6585  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D11

<400> 6585

```

ccccggttct ccgactgggc aacctcccg tggctctggg ggtccccaac ccgcaacaat 60
tccaacccca caaaaccgga cccggcaacc ccgaacctgc cttagggtt aaaaggccaa 120
ccaccgatg aaggagaact ttttcaagga aaccttaaaa ttgaaaaaaa tggactttta 180
gggtggatca aaaaggtagg aacctccggc aaaattgcta ctgcaatttg gcagctttgg 240
ggtttgcggc ttacttacac tgctgttgt gtctctgact tttctgctc tgagtttaac 300
acaaaaata tgggtgcgtc tagtgctcac tggactcgca gctagcgtcc gttgccat 358

```

<210> 6586  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D2

<400> 6586

gggtcgactt cctcagcacc aagtttgggg tgcctttcct gccaccgtcc aaggcgaacg 60  
gcacggactt caagcacggc gcgaacatgg cgatcacggg cgcgacggcc atggacgcgc 120  
ccttcttccg cggcctcggc ctgtcggaca agatctggaa caacggggccc atcagcttcc 180  
aatccagtg gttccagcag atcaccgcca ccgtgtgcgg gaacgactgc atgcggtacc 240  
tgcgggactc gctggtggtg ttcggcgagt tcggcgggaa cgactacaac gcgatgctgt 300  
tcggcaacta caaccggac caagcgagca ggtaccaatg tttcaacggt tcgaacggag 360  
tgccgctagc taaatgaaat cctgtccgcg ctatagcctg atttttcacc ggcatatagc 420  
cgatttgat gagtagtacc gctact 446

<210> 6587

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D4

<400> 6587

gaccttcaaa accggaaaaa aggatcccat acagggggca acggcaacga caatgggaac 60  
agatcaaggg accacaaccg tgaccgctac aaaaaccgga cccgtgacag aaagaggccc 120  
tattaccagg gaggtagagg gtcggactat ataggcgggt cctataacag ccggagggat 180  
tctgaaaggg caaggcccac agacaggaac ggtggtgatt tttcaagaac aggagaccg 240  
gggaggatga ggagcaggtc tcggtctccg ggcattcatg gttattaatc atttcaagtt 300  
atatgagact cgtgaggtaa acattatgct cctttgttta ttcattcagt cgcaatgtct 360  
gggtgttgtc atgattaaat ttaaacccta ctctgctcta gcagctcttt gttgaaacca 420  
tacct 425

<210> 6588

<211> 238

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-D6

<400> 6588

ccggccgacg gggaaaacaa tgaccgtccg tacgacgacg aaggatagca ctacagcggc 60  
caccgggatg accatgagga gagatccata gatcagcacc gtcagtgtg taatcaccgg 120  
atgcctgtca cgctgatgtc cgattcacct tgaggtacag ggtcgcactc tectggctgt 180  
tcctatcact gcctgatgga ttctcatggg gcaacgctca aagacacgac cggttgtg 238

<210> 6589  
<211> 308  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-004-Q1-E1-D9  
<400> 6589

ttgagaaacg aatgaccgag acatagtttt tcagaagcgc tagcacctta cgatcgggta 60  
gacagttaca cctactttcc cctacatctg ctagtctacc actgtaagag ttcacatgac 120  
ttaatcaact atgctagatc ccatagtagc ttgcggctgc acacggaagt ttctagcatg 180  
aataatttca tgatcccttt gagcctgggt ggcggtccat aaagaaaacg accaatcgct 240  
ggaataccca ggtgcctcaa tccaccaga tgtgtgttaa agttgccacc ttaaataaac 300  
tattaaat 308

<210> 6590  
<211> 319  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-E10  
<400> 6590

tgaaggcctc taaagtaaag aaagaagaaa ccggttctga tgatgaatgc aagccaaaat 60  
ctcagaagag aagtccagct gcgggcaaac ccaagatttc caagattaag aaaccaaag 120  
atgaatatga tgatacaaag gaggaaaaga aaataaagaa ggaagttggt atcaagaaag 180  
atgaaaagaa ggctgctggg gtgaagaaag anggggctgc tggggtgaag aaggagagga 240  
aggtgtatga attgccaggg cagaaacatg atcctcctcc tgaaagggat ccattgagga 300  
tattttatga atcgctcta 319



<210> 6591  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E11

<400> 6591

```
ccgggtcgac aagaagaatt ctgcaatgct tgtgaggata acgagtgtta gaatgcgaga 60
ttcgctaaac catgtacaag gaaatgattt ggggtgcggga tggattgatc accataccga 120
cttactctta ttattcgctt tgctatatgg gatggtaaata ctgagtgact tacctatagt 180
ggagagacga cgatcaaaac cttgtttgaa ccttaaaaag gtacaggtat tttttttccc 240
ttgtacacgg cagttgttgc caaccgtagg ttaaacgggtg aggttcaacc caaacccctt 300
cctgcaggag aaac 314
```

<210> 6592  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E12

<400> 6592

```
gggccgaccg ggcttggttag gtatggtttg gagggtccta acaaggggtcc tcctgtgggg 60
aattccccgg gaaaatgggg gctttcctcc aatccttggg gccttggggt aaccggaaaa 120
acccggaatg gattgccggc acaattggcg ggaatttttg cagtagtccc tttcgtgctc 180
aagggcaaaa gaatgctgcc gttctttttt ttgagagcga atgcgtcctt tctggtgacg 240
ctgggaactg ggaagtcgtc aatccagatt cttaacggcc ttattctgtc atgctggaag 300
tcggcaatcc aaaccacat gttcctcacc atatttgtca tgtccatagt tgtactatat 360
acagttcatc catgtgaata acacaatcga ttatcctaaa aaaaaaaaaa gaagaaagga 420
gaaaacg 427
```

<210> 6593  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E2

<400> 6593

cggggtccgac ggggtgacaac gtgaccttgc aggtgactcg ggaccgcaaa atgacaaact 60

ggccaaatcc caaggtcggc ccggttaggc ccccaggttc cccaagacca caggaggaag 120

ggtggtggct ggtggtcggc gacagctcca ccaagcagct gctggctatc aagagggtca 180

ccctccagaa gatggcccggt gtgaagctcg agttcaccgc cgccgcggag ccagggaacga 240

aggactacat gatctacctg atgtcggact cgtacctcgg ctgcgaccag gagtacgagt 300

tcaccatcga catcaaggaa gctggaggcg actaatttca aacacccaaa actctttttt 360

atactggggtt tttgctctta ttagacaaat attatgtgac ctggaactta tcatcttttt 420

gtctgtaatg taacacctga 440

<210> 6594

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-E9

<400> 6594

aacgggttcc acaaaaaaca tcaagttaag attggcaagt tcaaaacccc gaaaattgga 60

catcctaata aagctaata accatctctg gaacttcaca acaccaacaa atggaagcaa 120

gcaggacgaa acctacactg agcaacctgg agtctttcca tgttggcaag caccacaatt 180

tccgtgtacc gacctgccag cgaagccccg gcacagcaag tatccctggc acagcaagca 240

ccgattagca ttcaggcatg agtaaccaag tgtgtccgag cccaggagcc caaatggccc 300

tgcgcaccga gagcccatga gcccaaattg cctgcgcac cgagagcagc ccggactgta 360

tgttcacagc cagaaactat tatactggaa ctcaattgcc aacaaacctc ccaagaacaa 420

aa 422

<210> 6595

<211> 205

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-F1

<400> 6595

ccccgggccaa cggggcagaa aggcgaaatc ggtggccttt tgcaagcaaa aagcaattcc 60  
 tgataaacia gccaatggtc ccctagccc aacaaaaagc tctgctttgt ttaagtcggg 120  
 ccagacataa atgggcctcc ccaaagaagt tacgaacaga ccatagtgtg agaaatccta 180  
 taaagtttct ttattttaacc tgccg 205

<210> 6596  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-004-Q1-E1-F11  
 <400> 6596

cgggtcgacg ggatgacgga aggcctcgcca tacgcgcgcg gcaaccagca agcggaggat 60  
 ggaggagaca tgtgtcggag tcccgggtgac cagcaagcga agagccgatg ggacagcgtc 120  
 gtctgtgccc cgcgaccacc tagcggggag gagctagatc ggggaagggtg ccgtcgccag 180  
 gtggtcgagg aatcgggcag caaagtgccg aaaaaaacgt ggagctggag aggcctgttg 240  
 ggaggaggaa acttacattc taatgcatga ggcgccggga gggagggtgct gagcggttat 300  
 gatcggcggt aggatcctgc gccatgtgcg atgggtggta ggaccctttc tttccttttt 360  
 tgtatgacag ctggcaaaag gtgcgggaca ccgctgccat atttaggtgt gtgctccgga 420  
 acgcta 426

<210> 6597  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-004-Q1-E1-F4  
 <400> 6597

cgggccgacc ggaagggttaa aaacctgatt ggaaggatat tgaattggct gaagcccggg 60  
 gggcatattt ccatcaggga atcgtgcttc aaccagtctg gggattccaa gaggaagtgt 120  
 aacccgacgc actaccggga gccgaggttc tacaccaagg tgtttaagga atgccactcc 180  
 tatgaccaag aggggaattc ctttgagctt tctctggtaa cttccaagtg cattggagct 240

tatgtgaaaa gcaagaagaa ccagaaccag atatgttggc tgtgggagaa ggtcaagtgc 300  
acagaagaca aaggctttca gagattcctg gacaatgtgc agtaciaaatc cactggaatc 360  
ttgcgttatg agcgcgtgtt tggggaaggt tatgttagca ccggtggatt cgagaccaca 420  
nangagtttg tggacaagct ggacct 446

<210> 6598

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-F6

<400> 6598

gacgggcaaa gtgagctttt ctcttgtaa cgtgccgcgc cgtgattttg ttagtgttct 60  
aggctcgcgt ctctagcaca gtctagccta ggaccagcac agtaccgtcg ttgagcgttt 120  
attcaacttt gcatttctga attgattatt gctgaccatt ttgctacca tattataagc 180  
cttcccagct ccacatacat ctacgtcgtg cggttgactc tccctagtaa tcgctctatc 240  
caagctttga gagtttttga ctacaacgat tgccgatcac cgcctgctgc tgggtaagaa 300  
ctggtgaagaa tttgagattt gcttgacgga tttgtgacac ccaccaccac ctcttggtag 360  
tagtctgtag gattatattc ttgtgtgtct ctattgctgc taaccatg 408

<210> 6599

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-F9

<400> 6599

ccgggtcaac ggggaaggcg aagatgtctt ggaaaactta cttgaacaac cacctgattt 60  
ccaacatcaa gggcaacaac ctgcctccg ccgcaatcct cggcaacaac ggcaccttct 120  
gggccc aaag cgccgatttc ccgtcgttca agccggcgga aatggccaac atcatgaagg 180  
acttcgacga gccggggacc ctgccccga ccgggctgct actcgagac gccaagtaca 240  
tggtcatcca aagtgaacct ggcgccgtca tccgcggcaa gaacggcgcg ggaggcatca 300  
ccctgaagaa gaccgggcag gcgctggtgg tccgcatcta cgacgagccc atgaccccg 360

ggcagtgcaa cctgggtggtg gagaggctgg gcgactacct ggtagagcag ggcattg 416

<210> 6600  
<211> 362  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-G10  
  
<400> 6600

aaggagggttt tgggggttggg aatggaatgg cttaccatta ccgccctata aaaaaaggcc 60  
ctactgctaa atgacctacc attaccgcct ttcacaaaga acccactact gctagggtgct 120  
agcatgtaaa attagacatc anaaatacat tcatcatcaa tgatcctttt gtgtagaatc 180  
tgaattgtca atatgaatcc tctactgggtt aagaaccggt gaggattcct attgcgggca 240  
cagatcctac acatagagtt caatgaacac tactangaaa aggctgcta gtggcgccacc 300  
tgttttggct actaatggcg cactacangt gcgccactag catcacgcca ttagaatttt 360  
ta 362

<210> 6601  
<211> 198  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-004-Q1-E1-G11  
  
<400> 6601

caaagatatc atctgttcct gtctatccag agaccaattc nggctcatta tgcattttg 60  
caatgcaaaa cttatctggg accgaatctc cgacgtctat gaaggttatc caaacagtca 120  
tgatccttgg tttgaagact tcaangaatc tctcaaaacg atgactttcg aaccagaatc 180  
atcatcttct gcatcatg 198

<210> 6602  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-004-Q1-E1-G2

<400> 6602

cggggtcaacg ggcgtgcttt tgtgttgatt attttggctg atgatcaata aacaaatttt 60  
ccaggacttc ctattttggt aggattttta gagttacata agtttgcgtt agtttagagat 120  
tgctacagac tatttttgttt ttgacatatt ctgtttttcg tgtgttggtt gcttattttg 180  
atgcatctat ggctagtaaa atagtttata aaccatagag aagttggaat aaagtacctt 240  
taacacaaat ataaataaag aatgagttca ttacagtacc ttatgtggtg gttttgtttt 300  
ctttcactaa cggagcttat aagatttcct gttgagtttt gtgctgtgaa gttttcatat 360  
tttgggtaaa gctttgatgg actatggaat aaggagtgcc aagagcctaa gcttgggggtt 420  
gctcaatgca cccaagatat tcatcaatag ca 452

<210> 6603

<211> 347

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-004-Q1-E1-G3

<400> 6603

ctatgggagg aatagaatac catgatggag gttgtgtgga gaagacaaaa aaggagaaaag 60  
tctcacattg acgaggataa tcaatgagct atggagatgt ccatcaattg atgtcaacat 120  
gaggagtang gattgccatg caacggatgc actagagcta taaatatatg aatgctcaac 180  
aaaagaaact agtgggtgtg catccaactt gcttgctcac gaagacctag ggaattttga 240  
ngaagcccat tgtacgaata tacaagccaa gttctataat gaaaaattcc cactagtata 300  
tgaaagtgac aacataaaaag actttctata tgaagaacat ggtgcta 347

<210> 6604

<211> 286

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-G4

<400> 6604

cgggagcgcc gagccggcgc cggcgcccg cccgtcttga actcgcggcg agaaataata 60  
ctaataccca ttgcacgtg ttgcagtaac gtagtttttt tcgacgcaga gtaacgtact 120

tcttgatggt ctttttttct gatcgacaag cttttctatg gtagctatat gttcatcttg 180  
 atctgtgctt cttttacttt acatcattta ttagctttgt gatctccttt tgtcattgtt 240  
 gagatattgt ttagtgctaa aaacaaaagg aaatttgagg aagacc 286

<210> 6605  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-004-Q1-E1-G8  
 <400> 6605

caagtgatt ggtttgcggt ctttttcaca tttactgggt tttccagctc tgctgccgcc 60  
 tgccacactt tgtaatgcaa ttttttttgt cacatcggtc atataatcag gattctagcc 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaca 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaaaaaaa aaaaaatagg cggtagaaaa 240  
 agattaaaac taaactttca cgtgcatcaa aggtcaaagc ccatacaaaa tggtagccata 300  
 ctttcattt 309

<210> 6606  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-004-Q1-E1-H10  
 <400> 6606

ggtatggaca accttcaagg aggaaggcgg ccggccggac gccatcatga tcctgacggt 60  
 gaaccgagac aacatctgca gttcatctc ggagaccaac cccgggcacg tgcggtcgtg 120  
 ggagaccaag gacagccagc tgacgatggt ggcggacgac ctgaagccgc gggcgggtgt 180  
 gacgtgcccg gagaagaaga tgatccagca ggtggtgttc gccagctacg ggaaccgct 240  
 ggggatctgc ggcaactaca cgtttggcaa ctgccacag cccaaggcca aggagattgt 300  
 ggataaggcg tgcgtgggga agaggagctg cgtgctggcc gtgtcgacg aggtgtacgg 360  
 cggggacctc aactgcccgg 380

<210> 6607  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-H12

<400> 6607

gcaacgcaag aaggggaaat cccaaatgga atttggcaac cggtataaac cggggcgggc 60  
 caagtggaca ataaccggga aatggggaca agttttcaaa atccaggaca attttttaac 120  
 ccctggacgg aattggaatc cgggaaaatt ttcaaattcg gaaacaaatt taaggcaatt 180  
 caaacattttt ccaaaaaacaa ggacaattac tgaatttaag aacaatttaa accgattggt 240  
 aacactttttt aaacaatgtc acaagaataa catatttatt aaatgaaaaa aaatagaata 300  
 gatgaacatt tttttagaag tttctggaac aaaattttta attctcaaac atttttttat 360  
 ttaatacaaa ttttttgaaa tgc 383

<210> 6608  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-004-Q1-E1-H4

<400> 6608

cgtaaaccctt ttttaacggcc cctaattgat acacatcccc aagtttttgc aaccaccgag 60  
 gaggaggctg gcattttggc atggggccacg tcagaatttt gcacgtacct ggacaccagg 120  
 ggcttattac caagggcggtt atccggcccc tcttcataaa gaccgaatac cttagggagt 180  
 gttcggcgtc tcgagttagg gcttatatgc atcagctctg aatcatgtct tcggtcaaatt 240  
 gttggggttg cccgactcct gtgttttgct gccttacggt ccgctctatc ggctaagacg 300  
 acaccagaag aactactgcg attgtgcccc ggctcgtcca ggcgagcacc ttagtagaga 360  
 aagccgaaaa ctgactatca tgatat 386

<210> 6609  
 <211> 264  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-A11



<400> 6609

acacactcct tgtgtctttg tcacacatgc actctgtcct cctccactca ccctctctct 60  
ctcacacaca tgggcttttt gcaacatcta gcaagatgcc catgcggtgc acggcacatc 120  
aagatgcatt tgtctgaata atttatcttg taggggaaat agtctacttg tggcatgtcc 180  
atctttcaaa agttggctta ggggtgtgagg tagcttctta gccatttgcc ttcccagcag 240  
ttgtaccgca tgaatgtcga ttgg 264

<210> 6610

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-A2

<400> 6610

ggtcaaaaat taccgggtcg acgggagcac aataaaaacc aaaaccaagg cttaaccgca 60  
gttccgcagt tcgtgtgttg cttatattat atgttgctat tatattacca ttattaagtg 120  
agggaggaat tgattagtgc cagtgtttga ttttgttctg tttgtcatgg tacgaggaaa 180  
gatcaccaag tagataaggt ctctagtagc agtttggtcg tacctaataca gtacccttat 240  
ttcattccga ctagtaagta aaaacttgtt tttccaaaaa aaaaaaaaaa aaaaaaaga 300  
aaaaaaaaaa agaaaaaaaa aaaaaaagaa 330

<210> 6611

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-A3

<400> 6611

ctgttcgacg cgaccaagtg atctggccgc cgagcagcga cgccatgcga cgcgatgatc 60  
cgggagcaga ggggcttcgg ttaagaaata aataaagagg atcgggtgctc caccgtgctg 120  
cggccgtgtg gtgttgggtg tgattgtttg cttgttgacg tggctgcatt cactggctgg 180  
gcaccaggat ccgtaagata agataaatgt gtacgtacgt gctgtattcc tgaacttgta 240  
ctgtgacgag cgagactcgc tttgtaacgt gctattctgt ttctacgtgg ctttcttcta 300

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaat cggccgct 358

<210> 6612  
<211> 388  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-A4

<400> 6612

cgggtcgacg gggaaacgca ccggacttgc gagatatatt ggaggataag gcaagacaat 60  
caagatcgat ctatggatcg cgtgggcgcc ccatgatagc cgacgacaac cgtcgcgccg 120  
gacacagtaa gtctggccgg gccgaacaaa atagacacat ctcttttgag ctctgtcatg 180  
atatcgccca gtacagaggc gccgcacacc cactatgctt cacagatgaa gtaatggatc 240  
atcaaatccc caaaggggtt aaaccctga atattgaatc ttacgatggc acaacagacc 300  
ccgcggtttg gatcgaagac tatctctcc acatccaaat ggcccgcggt gacaatcttc 360  
acgccatcga atatctccca ctcaaact 388

<210> 6613  
<211> 263  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-A5

<400> 6613

ccgggcgatg tgtcttagga agaagtgggg tgggtggtgc atgggctcca agtcgcaagc 60  
gaagaccaag gccagggaaa ggcttatcgc aaaggaggct gcgcagcgga tgaactaagt 120  
ttagcattgt tgaaccatat ctattcctca tccttgagta gtgtgcaagc atactgtggc 180  
agtttggtc cagttttgaa agtcattttt gtttgtctga aacatcttgg aaagaacagt 240  
gtaagaatga agtatttctg ttt 263

<210> 6614  
<211> 430  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B1

<400> 6614

gggtcgagct ccgcggacga ggtgcagcgc atgatggcgg agatcgacac cgacgggtgac 60

ggcttcatcg acttcagcga gttcatctcc ttctgcaacg ccaaccccg gctcatgaag 120

gacgtcgcca aggtcttctg aatcagttca tttcacctca gccgtccgat ccaggagccg 180

atccatctac gtacggcttc gtatatcaat ttcattgcaac tacctactcc ggtcccgatc 240

cagcctcagc ttcacctgag gccggcccta attttgtttg atcatttttt ttgctaccag 300

tagtaactag tgatgatcac tgttccatca tttatttatt ttatatcatc acatgtttct 360

tttctttctc tacctttttg tcgatcgctg gctccagctc gatccaacga ttcattgctgc 420

taattggttg 430

<210> 6615

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B10

<400> 6615

gggtcgacgg ccaacacgta gtagaaggca cctccggtgt agtagaagtc atcgtcgaag 60

gtggtgtctg gtcctctgggc tccaacatct gggtgcgaca accaggtaga agggataggg 120

ggaaaagagg gagaaagcaa ccgtgagtag tcatccaaag tactcgcaag caaggagcta 180

cactacatat gcatgcattg gtatcaactg gaataaagct atcatatgtg gactgaactg 240

cagaatgccg gaataagaga gggatagcta gtcctttcga agactacgct tctggcagcc 300

tccgtcttgc agcatgtaga agagagtaga ctgaagtcct ccaagtatca tcacgtagca 360

taatcctatc cgatgatcct ccctcgctg ccctgtgaga gagcga 406

<210> 6616

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B7

<400> 6616

ccccggccga cgggggcctg catgacctaa gggctagggc gagggacgtg acggcgctac 60

aactcaaggc ggcgactgcc atcgggtcaag tgtgggtcat cgaggctgct cgctgtgttt 120  
 cgtcgcagct gcaggccgcg agatcagggtc gggaaggcgc cgcgcatga cgagtgagcc 180  
 aattttcgga ttggaccata acaacgtgtt tcgggtctccg acgtctagaa gtagtggttaa 240  
 agttttgaat ttgtatggca agaaccactt acgtaggtag ctgacacgca cgacagtgtg 300  
 tttaactct tacttatgta aaagatatga attatacatg agttgcctcc acaatgagga 360  
 attgcgatag tagatatggc aattatgtga tagaaaaaaa accaaaccgg ggaaccggcg 420  
 ccac 424

<210> 6617  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-B9

<400> 6617

gggtcgacgt ccgcccgcaa gaaaacaacg agcgcgcttt cctatttagg gtcgagagtg 60  
 gcactaatgg tgaagggtacc accagtgccca tctctcttgg cggacacctt cttggtttct 120  
 ggcgagagtg ccattgtctt cttacacttg ccggtggagc tcgatggtgc gtccttgatg 180  
 gtagcgcagc actccgaaga ggtgcgcttg ccggagtggg catcagaact ctttccggac 240  
 ttggtattct tcttcgcccc gggagcttca acggcaagtg acttgcgatc tgttgagct 300  
 gctgcttctc ggtagatctt gtcggcgcag ataagagcat ctttcttgtc gccagggaca 360  
 gaggtgacac ttatcggggc tggcatcttc agtatgttgt atgcatagtg ag 412

<210> 6618  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-C11

<400> 6618

ggtcgacggc gactcgcagg tgataaatcc ccatcactcg ccggcgattg gtctggacgc 60  
 gaccaatggc agaaaccgca gcgatagcac caccaccaca accaatggca ccaccgcaac 120  
 cagtggagga aaacgcaacg gcggcaccgt cacaaccaat ggcaccaccg caaccaatgg 180

cggaaaacgc aacggcagca ccaccgcaac caatggcgga aagcgcaact gtcgttgtgg 240  
 tgggtgccacc accaccgcca gacggcacca cgacattcct ctgcctcatc ctgccttct 300  
 tcacccctcc cctcggcggtt ttcctcaagt acaaagtga gattgaattc tggatctgcc 360  
 tcacctaac attcttggcc tacgcgccgg gcatcatc 398

<210> 6619  
 <211> 176  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-C5

<400> 6619

ggaagaatag gaggaggaag aagacgatga agaagaagac gaagaagaag aagaacgaag 60  
 aagaagaaga ggaagaggaa gaatcagcag cagtatacga acacgaagac gaccaagagg 120  
 aagcagagga acacgacgaa gaagaccacg aagaacaaga cgaagccctc cacgaa 176

<210> 6620  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-C9

<400> 6620

gggtcgagcg ccataattta tgaaacttgc tccataaatg acctcatagc cccatatttc 60  
 cacgtgggat agaggtccca cttgccaaat gtgggaagtc tcagcttctt cacggccgtc 120  
 acgccatgac tggattttta agccgcgtgg cgcaggtaca tgcacaatcg tgcgccggtg 180  
 aacaccgatg aaccatggtc acggcaaggc taaccacgca tccattaata gcatccatcg 240  
 ctccctccca attaccaatg cagtcatttg aatggcctca cgacttcac ccttcctaga 300  
 aaagccctat ggcgaggtgt ccccatcacc gaagtcagtg ctggagcccg acgacccgat 360  
 tgatgccgtg tcacggatat ccgctatcga 390

<210> 6621  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D1

<400> 6621

gggccagata tccgggtcga caccgattgc gattttctcg agcaggaaaa cattatggat 60  
tacagtcttt tgggtggcgt acattttaga gacaaaagag ttataatgac tgaagggtcc 120  
tttgacagtg atagcagcag aggatcatca cccacctat cacctcacct atctagagga 180  
gatactgata caaacaggtt gtccaagata aagctcgggt cgaacatgcc aacaaaagct 240  
ggattgacaa ttcgaaagag tgattgtgaa ccacagctta ttggagaacc taccggggag 300  
ttgtacgatg ttatattgta ctttgggatt atagacatac ttcaggacta tgatatcagc 360  
aaaaagcttg agcatgcata caagtcttcc caatatgacc caacgtctat ttcagcagta 420  
gattcaaaac tg 432

<210> 6622

<211> 311

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-D3

<400> 6622

gggtcgacgc gggatgacta ggtgacttat gtccatccgt gacatgaata tctgattttg 60  
cgggtgagtca gtcactttgc tcaatttagt tttgcttgat gtttgaataa agtaccttga 120  
tccgaaatta ttaagtgtta gagagtcttc acatggtcgt cacaaatggt cgactactca 180  
ttgatcgta cttagactct catcgacta ctttattgtc gctcaaatgc aacacataga 240  
tcgtcgata tcatggtcgt aactggaata tgccgagatt tatcaactgt aatgtctcag 300  
ctacatatcc c 311

<210> 6623

<211> 427

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-005-Q1-E1-D4

<400> 6623

cgggtcgacg ggggtgcgca tctggg'gcg gctgctgcgg acggttgggg tcaaggtcgg 60  
 cgggaacccg aacgtgtacg cgagcctcct tggggttctg tgggtcttcg tggcaaacag 120  
 gtggcacctg gagatgccag acattataga tggctcgatt tcgatcatgt caaggaccgg 180  
 ccttgggatc ggaatgttta acacgggcct gttcataggt ctacaggaca agctcgtcgt 240  
 gtgccggcct ggacttacgg cgttgggcgt ggcgatgagg ttcgtcgctg ctccggcagc 300  
 caccgcggtc ggagcgctac ttttgggact gcgtggtgac cttntgcgtg ttgccatctt 360  
 acaggctgca ctgcctcagt ctgtcggagc atttatcttc gcgctagagt atgacctgca 420  
 cgctgat 427

<210> 6624  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-D9  
 <400> 6624

ggtcgacggc ttccctcact attacatggg tggaagaact aaaatagagg attctgaaaa 60  
 aaaaaggacc ttcgaaatcc aattttatgt gtagcgcaaa ggagttgcga ttcctttctta 120  
 ttcctataga acatctagta acaagaatat gaaatcgtaa atagcgaaaa attcttgtct 180  
 tgcgcggtct aagtctaagg aaataaaaaa attcgcttat acaatttcat ctacatcgaa 240  
 tttatatatc agaatagcgg atagaggcat cattaaagga gtcaggctta cttactttat 300  
 gcttctttcc aattttatgg tggatttgat aagaaccctt atcgctttct tgataaataa 360  
 tcgacaaaaa aagcgttttt tttatataac ctgcttggtt t 401

<210> 6625  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-E12  
 <400> 6625

gggtcgacgg ccagctgaaa atagatacca gaaaagggtca gtggtgtttt ggagggcgcc 60  
 tcgtctgtat gtattccatc tgtgtaagtt aattcatttg ggtgattggg tcggctgtag 120

gcggtatatac tcaacacagt gggggatttg taatgtttct ggttttgtgt tccttgtag 180  
atgaaataat aacttaactt gtttataaca tgctcctcaa ttttcttcct aacaaaaaat 240  
aaataattac aaaaaaaaaa aaaaaaaaaa aaacaaaaat ataagaaaaa actaaaaata 300  
aaaaaaaaaa attaaaaaaa aaagaaaccc taaagtttca acgaattaa 349

<210> 6626  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-005-Q1-E1-E2  
<400> 6626

cgggctgcacg ggcccctcaa aagtctcttc attatttctg aaacaatcta aatttttaaa 60  
aacttcaaac aaagtgaacc aacttcaata agattgatag caactactca tacaagtgcc 120  
tagagcatat atcaagcatt agaactactt ggaaccatat atatttgaca tgcaagctca 180  
agaacatggt cactgtcggg gtcaaaaccg gcggatctcg ggtagggggg cncgaactgt 240  
gcgtctaggc tggatgataa caggaggcag ggaacacgat gttttaccca ggttcggggc 300  
ctcttgatgg aggtaaaacc ctacatcctg cttgattaat attgatgata tgggtagtac 360  
aagagtagat cttacacgag atcaaggagg ctaaacccta naagctagcc tatggtatga 420  
ttgttgatgt g 431

<210> 6627  
<211> 359  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-E3  
<400> 6627

cacctcgac ggagaataaa agattagtga agaaagcagg ggcttttctg aaatttttgt 60  
aatctcgtt tttatctagt ctttctctgt caaacctcg ccgtcgctag gcagccagca 120  
tcagcaatag tactactact actactagtg ccatttccgc cctgctctt tcagctatct 180  
ccttttctcct ccataaacc cttgcctttt agctaaaaac ttaaatgttt aagttaaaaa 240  
aaaaaaaaa aaaaaaaaaa aaaaaaaac aaaaagaaaa aaacaaaaat aaaaaataaa 300



agaaacagga taaaccggaa gctctagagg tttaaagcta atctgcatgt gaatgaaac 359

<210> 6628

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-E9

<400> 6628

ggtgaaattt tagtgccata aaaatgtctc tcttctttga aacaatatac tctggcatgg 60  
attatatcaa ggatcactat gtcaattcgt gctgtcattc attccacatc gataattaag 120  
acgatcatac tgacatgatg cacgaattct ttatagatgt ttctcatatt ctgtacaaaa 180  
tgtattcaca tttaatgggt cgatcaaggg ttgtcatgta atgaatcgtc caaggaaaca 240  
gtgcatttga tgcttataga cgacaatttt gctccattaa tcctatttga ggatatcttt 300  
tgctgggtatt tcgagatgtg aaaaattgtg tatgatcgac tctacaatgg tatccagccg 360  
tatgatgact atttcat 377

<210> 6629

<211> 363

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-F12

<400> 6629

gggtcgacgg cgatgggaag aaggacggcg acgggaagaa ggacggcgag aagaaggagg 60  
gcggcgacgc caagaaggaa ggcgggcgacg gcggcgacgg caagaaggac ggcgatggga 120  
agaaggacgg cgacgggaag aaggacggcg agaagaagga ggagggcgac ggcaagaagg 180  
acggcgggcg gaagaaggac ggcgacaaga aagaggaggg cgacggcaag aaggacgacc 240  
agaagaagcc cgccgccgtg gccccgctgc cgttcccga ccacatgccg ctgccgcacc 300  
acatgccgcc gccctacatg ttcaacgccg actacatgat gaaccagtac cggccggcgc 360  
cgc 363

<210> 6630

<211> 421

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-F4

<400> 6630

cggtcgacgg gtgattgtat tgtatatgag tacaaaatct acacttattg cttcctttca 60  
 agttgcgtcg agcgagattg tctttagtta gcataactcc tcttcaaaga taccacatga 120  
 aaatcttaac tttagtggca tcttcgattt ccagatttgt ttataattgt ccatttgaaa 180  
 atgttgaata agtattatat atgttgaaga agtatttgaa aatgttgaat aaatattaaa 240  
 aatgttgaac aagtatttga aaaatgttga ataagcatta aaatgttgaa caagtatgta 300  
 aaaattgttg aatatgtgtt cggaacaatgt cgaacgtgta tacaaaaaat gtttgatcac 360  
 ttattaaaaa atgttttttg acatataaga aaaatgcagc gaaaacgaaa acaagcataa 420  
 g 421

<210> 6631  
 <211> 67  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-F6

<400> 6631

aggtagagtg agctatgcgc aggcgaagg gttttggtga attttcgata attttgcccg 60  
 tgagata 67

<210> 6632  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-G1

<400> 6632

tatcatatat cttttgagaa tgggaccag ggtgtattag atggatttat gattcagttt 60  
 aacacgaaca catttgggtc tgcagccggt ggaccacttc aggttcctcc actccaacct 120  
 gggtcctcag ccaggacgct cctagctatg gttttctccc agaatgtctc ccctggagca 180  
 ccaaacttgc tactgcaggt tgcagtgaag aataatcagc aacctgtgtg gtatttcagt 240

gacaaagggt cgctccatgt cttctttggt gaacatggca aaatggatcg aacgggtttt 300  
 ctcgaggcct ggaaatcttt acctgatgac aatgaatttt caaaagaata cgccacgttc 360  
 tgtcat 366

<210> 6633  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-G10  
 <400> 6633

gggtcgacgg caacttgtag atcaatgaat atgatatggt tgattccttg caatagtttt 60  
 gcgatataaa ggtggtgata ttagagtcgt gctagttgag taattgtgaa attgagaagt 120  
 acttgtgttg aggtttgcaa gtctcgtagc atgcacgtat ggtaaacgtt gtgtgacaaa 180  
 tttgaagcat ggggtgttct ttgattgctt tccttatgag tggcggtcgg cgacgagcga 240  
 tgggtcttttc ctaccaatct atccccctag gggcatgctg agtagtactt tgcttcgagg 300  
 gctaataaac ttttgcaata agtatatgag ttctttatga ctaatgtgag tccatggatt 360  
 atacgcactc tcacccttcc atcattgcta gcctc 395

<210> 6634  
 <211> 315  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-005-Q1-E1-G11  
 <400> 6634

gtcgtgttac cagtcgtgca cgggtgcgct ggtgggcacg ctcaagcgtg cctggaagcg 60  
 ctccgccatc atctaaatcg tcgtcctcgt cttcagcgtc atcgtggacg ccgtcggctg 120  
 ctgtgccttc aggaacaagc gccgctagct atacaacggt ggcggatagt gggatcaagg 180  
 cgcgtagcgg tgatcgcgcg cttgtctcgg ttatttaatg cttggtttgg atggatgcga 240  
 tgggtctcttc gtgtcattca tcttcgttgg cgttggttct cttacgatgg tctgggtctag 300  
 ctttgtgcat gcgag 315

<210> 6635  
 <211> 411  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-005-Q1-E1-G12  
  
 <400> 6635  
  
 ggtcgacggg ctatgataga tacactgccg catacaactt ttgtgaaatt atcagttaca 60  
 ctatgggcaa tatggtgggt tagaagaaaa gctattcacg aggagatctt ccagagccct 120  
 gcttccacgc atcagcttat ctgtagcttc ataagggagc tagaatacat gccgggcaac 180  
 cagcatgggt ttatgaagat ccatgtagac gctagcattg caaggaatca gaacaagggc 240  
 gctgctgcag ccgtctgcag agatggcgat ggaaatttca tgggaaattc ttcattagtg 300  
 atttatggaa ttaatgatgc tgcaacaacg gaagctatcg catgtcgtga ggccctttca 360  
 ttggtggatg atttgatggt acaaagcttc gtaatagcat cggactcgaa g 411

<210> 6636  
 <211> 409  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-005-Q1-E1-G2  
  
 <400> 6636  
  
 gggtcgacgg gactgtatat gatgcagccg gaggggttttg tcgatcctaa gaatgctgac 60  
 aaagtatgca agctccagcg atccatttat gggctgggtgc aagcatctcg gagttggaac 120  
 attcgctttg atgagatgat caaagcattt gggtttatgc agacttatgg agaagcccg 180  
 gtttacaaga aagtgagtgg gagctctgta gcatttctca tattctatgt agatgacata 240  
 ctcttgatgg gaaatgatat agaacttttg gacaacatta aggcctactt gaacaaatgt 300  
 ttttcaatga aggaccttgg agaagctgct tacatattag gcatcaagat ctatanggat 360  
 agatcgagat gcctcatang tctttcacia agcacatacc ttgataaga 409

<210> 6637  
 <211> 393  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB104-005-Q1-E1-G3

<400> 6637

gggtcgacgc ggaggttgag aagatgattg gcaggatagt gaagtggctg aagcccgggtg 60  
ggcatatttt catcagggaa tcgtgcttcc accagtctgg ggattccaag aggaaagtga 120  
acccgacgca ctaccgggag ccgaggttct acaccaaggt gtttaaggaa tgccactcct 180  
atgaccaaga ggggaattcc tttgagcttt ctctggtaac ttccaagtgc attggagctt 240  
atgtgaaaag caagaagaac cagaaccaga tatgttggtt gtgggagaag gtcaagtgca 300  
cagaagacaa aggttttcag agattcctgg acaatgtgca gtacaaatcc actggaatct 360  
tgcgttatga gcgcgtgttt ggggagggtt atg 393

<210> 6638

<211> 425

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-005-Q1-E1-G4

<400> 6638

gggtcgaggc gacagccaaa gccatggacc tcacagcaa gggcaccaac tagctcgtct 60  
cgggtgtcgcg acgtccgggt ggaatcttag gagagtttag ctccattttt attagggatg 120  
agttaagttt agttcgtgtg ccagtcttaa taaaaatcaa gcatctgtat aattaaggag 180  
gctactgatt gttgtagcct tcacctgcaa tttatccgag ctttgaatga atggacttgt 240  
gttcggaaaa agaaaaatac agtgctgctg gcttagagta gagtttggtt tctagtcgta 300  
taatgcaatg tttacttate tcttgctctt agtttcatca tcagtaatga ttttattcct 360  
cttggcggtc gcatcaggca tgnnttaata agatcgtatt ttatgggaag gagggagtac 420  
ttttt 425

<210> 6639

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-G6

<400> 6639

cgggcccagc ggatagccta gtatcctagg atctatcggt tgataatggg atccaagggtg 60  
 tactatatgg atttatgtgg catttttagca agaccacact tggatcatgta ttccgtagtc 120  
 cagtttaggt tcatcgactc aaatgtgggt tctcaaggaa gattctctta acggtgggtta 180  
 tctatcatgg tgtcacgcat gtcgaagtaa acttgctcat tgatgttgca cat 233

<210> 6640  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-G8

<400> 6640

gacgggcccag tcgagcgcca cgccacgaaa ttgtcgatgg gatccacett cctctctcca 60  
 cctcccactg acagtgccgc caatccatga gatccagtcc tggcgccctc ctctattcat 120  
 cgccttgctt tgggaccctg caagatccat ggcataggat cctgaccacc agcgccacga 180  
 gtcattggga gatcctccct cggcttctgc ggcaccggcg agatcctccc cagcttatac 240  
 ggcagtggcc ttctcctccc atggtggcct gaggaggagg ctccacctac cctgggtccg 300  
 ctccaccacc acgacttgca tagctagatc accgcacggg ctgccatcag gcgaccacct 360  
 ctctgtctca gcgcattggc tcaccgttcc ccatgtgtgt gtcctctgtt gacct 416

<210> 6641  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-G9

<400> 6641

cgggtcgagc cgaaggagca actcctccac gaggtcatgc gtcgttcgct tacctcggcg 60  
 gagacggagc ctaggcgact ccagcacaag aatgtgatgg cgctttggct cgggatcgag 120  
 gtgtcgaagc gccttgcgag ggagaatgag attgctaaga ccagggcaga gcaccacacg 180  
 aaggagtggg accgcgccat ccagcgctc tccggtaca tctcctcgac gtcggacatc 240  
 agcagcaccg gcacgaaaaa tgacgatgag gatcctccct ccgcgagcgc ctacacacag 300  
 cagatgtacc accgctccgg atactgcaaa ggcaagggcc cagacaagaa atggtgatct 360

ctgccccctc tagctaatat agtttgtatc cagtaatcta tcttgcaaa 409

<210> 6642  
<211> 372  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-H1

<400> 6642

tcgacggggc atatgtattc tatggtgggt gaacaaatta ctgttgagca attgacaaaa 60  
ttgagcatag ttatgagaat atctaggtat gatcatgtat ataggcatca cgtccgagac 120  
aagtagaccg actcctgcct gcatctacta ctattactcc actcatcgac cgctatccag 180  
catgcatcta gagtattaag ttaaaaacag agtaacgcct taagcaagat gacatgatgt 240  
agagggatag acgcatgcaa tatgaagaaa accccatctt gttatcctcg atagcaacaa 300  
tacaatacgt gccttgcctgc cttactatc accgggaaag gacaccgcaa gattgaaccc 360  
aaagctaagc ac 372

<210> 6643  
<211> 380  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-H10

<400> 6643

gccataatgc atggcaaatt aagacaatct aaaggaggaa gaatggagat ccattttgag 60  
gcacgtttaa aaaggtcaca tgatgtctaca tagtcagcca agttagtatc agaagcagcc 120  
agtgttggtta cgtgtcaagc acgtatcctc ccatcatggt tctactacag ggatgagaaa 180  
cactactagcc agtttaacac cttccttgac gatttaaccg taactacagt tattccacac 240  
actttgtaat cttgtcttgc acagtaccat accttcaata cttgtcatgt gatcactcat 300  
attcattttt catcaaatga tgttcaagtt ggatccacta gatgctgcac ctatcaatgc 360  
atgcactcat gtttttcagt 380

<210> 6644  
<211> 425

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-005-Q1-E1-H11  
  
 <400> 6644  
  
 gggtcgacgg ggttttttga catacctctg cgccagcgtc tctgtcctgg ccgccttcct 60  
 ctttggccta cccggcctcg gtgcctcttg ttggcgagtt gctgcggggt cgacacggcg 120  
 tcccgaatgt cttccctata aaacaccata tgtatatggt aggtgaagtg tctaaagggg 180  
 gatcctagtt tttggagttg ggatttttgg ttttcttacg tgcgatgcag ggagcagtc 240  
 gggatagtcg cccgtaatgg ccaccatggc gtcacatag ctcaattgat agaactgtct 300  
 gtctatcagc tccacgaata tgtccggatc ttcttcgagt acggggaccaa cggcccggtc 360  
 agggtcctct ggttgtggag atgggctgtt ttctccctt acagcttttc acagtttctc 420  
 cataa 425

<210> 6645  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-005-Q1-E1-H12  
  
 <400> 6645

taatgtcgct agactctgag aattgtccgt taaggtaaca tcaggtatcg gatttatgga 60  
 cattgaatag gtcaagcggg agcttttctg cgtgaaatac tccacacaga agtcatacgc 120  
 atacctccca gtgcgctcaa atactgcaat tgcgatgcag catggcaacc cataaacatt 180  
 ccactttcgg caagtgcagt catacgtctc aatgttgaca acattaactg agtcacgcga 240  
 taccttgaat aaattaccat ccccatcact ttctgtgggc ataacatcga gtgagtgagc 300  
 tttgctaact tcttctgca atttctggtt agctacaggc gttaatccgt caggccattc 360  
 attacaagac tctc 374

<210> 6646  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-005-Q1-E1-H2



<400> 6646

ggtcgaggcg agatccaaaa ggacagggct gcggttgaat tcgaaaagaa ggcacatgct 60

gataaccttt tacaaagtaa agcaatggag aaaaatatga ttgccgtggc tagtgagatt 120

gagaggcttc ggggtgagct tgtaaagtct gaaaagcggg cactgctgt caccacggca 180

gcagctgtaa ctaaccctgg gtatgctcaa ccgtacagca gttctgaggc aacatatgcc 240

acaatgtatg gcaatcccgaggcagcatat gcagcatatg gcagtgtga ggcaacatat 300

gctggaacat atgccaatc tgatgcttat agcaccacta atcaggctca gactcgact 360

gatggtaatc cacattacat gaccagccg gctcactatg cgcagtacga aggccagcag 420

cagcagcagc agcagcagca c 441

<210> 6647

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-H3

<400> 6647

taccagaaat ggaggtggca gcctgatgcc tgcgacctcc caaggttcga tgctaagttg 60

cttcttgaga agctaaggaa caaaaggatg atgtttgtgg gggattcact gaacaggaac 120

cagtgggagt ccatggtgtg cctggtccag tctgtggctc catgggataa gaaaaagctt 180

gtcaagaatg gatctctaaa tgtgttccgc cttcatgagt acaatgcaac gattgagttc 240

tattgggctc ctttcctagt tgagtcgaac tcagatgatc cagacattcg tagcatcact 300

gaccgaatga tcacgccaac atcgatgcc aagcatgcag caaattggat aggggtggac 360

tatttgatct tcaacactta catttggtgg atgaacaccc cgaacatgaa aat 413

<210> 6648

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-005-Q1-E1-H4

<400> 6648

actcaaaaaa tcaacgtcta cgagcatagc atagcagtat aagcataacg tagaagtaac 60

tcccaaggtt tgaatgcagg acagtaggtt cctacctcat caactacttc ccaataccca 120  
catgttatca aatcctaacc atgcaatgtt tgagggtgaa actaatgcat aaaaactggg 180  
tatgaaaggg atatgatcaa cgtgtgaact tgccttgtag tgttgatgaa gatgattcgc 240  
actcataact cttgatagtt ctactcgtca cactccgttc aatctagtaa gaaagcatta 300  
gtaaccacac ataagcaatc actcaaaaga ccgggaagaa tgaagaacac gattcgaaaa 360  
acatcaaaac caagcaaata actcttgc 388

<210> 6649  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-H6  
<400> 6649

ccgggtcgac gggaagctta atgattgttt tgagatatgg aggtagtgat attaaagttg 60  
tgctagttga gtagttgtga atttgagaaa tacttgtgtt gaagtttga agtcccgtag 120  
catgcatgta tggtaaactg tatgtaacaa atttgaaaca tgagggtgttc tttgattgtc 180  
ctccttatga gtggcggtcg gggacgagca atgggtatatt cctaccaatc tatcccccta 240  
ggagcatgcg cgtagtgttt ggtttttgat gacttgtaga tttttgcaat aagtatgcga 300  
gttctttatg actaatgttg agtccatgga ttatacgctc tctcaccttt ccatcattgc 360  
tagccctttc tcacattgag agttggtgca aacttcgccg gtgcatccaa accccgtgat 420  
atgatacgct ctttcacaca taa 443

<210> 6650  
<211> 335  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-005-Q1-E1-H8  
<400> 6650

ttattgggct ttatgggaaa gagagcatag catgccactc actcccaagg cctagtccga 60  
agtggactag ggggaacgga tgcgccccctc tttccttctc ttcacgtttc cctttccttc 120  
tcacgtactc ctacgaggtg gaacggctcc tagttctacg aggaaagggg gaatccgatt 180

cccggttgga cttgcactct cctgttgctc accatagatc gggcccagcc ctcttgacca 240  
ctacaccctt atatacctgg tcaatgggca tccatacac tcattaattg atctcctgat 300  
ctcttaacca tgtgcggtgc cccctccac catat 335

<210> 6651  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-A11  
<400> 6651

gtccccgggccc gacgggggga ttgattttcc tgcaggaggc gcggtcgccg agtctgattc 60  
ggacgaggaa gatcagatcc aggtcaatgg aaaagcacc tcaatcgggt caaggtgcag 120  
cgtgaagaag ttgcacgacc tgatttcctc atttgatgag gagaaacgac agtatgtagc 180  
cgagatggag tttggggggc tgctagagct accaaagata acaaggacgg ataggcattt 240  
cttgatgtct atcctaagcc acatcgatga ggaggcaagt tcaattacaa ttgatcacia 300  
acgcgacatg caatTTTTcg atgaagatgt caaactgggc atcggcatac catgtggaac 360  
tgctcctgtt cgccctccag accacgctgt tccggaggca gtggtgacac aga 413

<210> 6652  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-006-Q1-E1-A3  
<400> 6652

gggtcgaggc ggtgaagaaa tactacanca agtccatcgg caggccggcc ggcaacaaca 60  
gcagcaacaa caacttcagc ggctacggcg gcaagaaggg cgctgccgac ggcaagaaga 120  
agcacgcaa gaacgagcga tgggacaaca accatggcgc ggctcggag aagcggttca 180  
agacgtgcc ggcgtccgag gcgctgcccc ggaacgagcc catcggcggc tacatcttcg 240  
tctgcaacaa cgacaccatg gaggagaacc tcaagaggca gctcttcggg ttgccatcca 300  
gatacagaga ttcagtgagg gcgatcatgc cggggctgcc cctcttctc tacaactact 360

ccacccatca gctccacggc atcttcgagg ctgcgagctt tggcggagcg aacaatca 418

<210> 6653

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-A5

<400> 6653

acgggtcact tcaaacaaac atgtatcttt tttttttctt tcgattctgc ctctggcacc 60  
ggaatagttc tatgtcacia aaatcaagcc caatcaagcg tggcacaggt cctagatata 120  
cgggacacac gcacctagtg gagcggctct atatggcgcc ttaggcggca aatctcttcc 180  
ctggcgctct cgccaagctc gcctgagcct agcccaacaa aggctagtgc atcggggcgc 240  
agttctccta cgttcgctgg gacaatgggt gatcgggtcaa ccgttggtcca tttggacttc 300  
tgtaaaaaat gaatctgaaa aattgtacaa aaacatgaaa tttgaaaaga acatggattt 360  
gaaaaaagta catatatttg caaaaaaaat gcaaataatga actaataaat tttgataaaa 420  
ttc 423

<210> 6654

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B1

<400> 6654

caatggaaga tgtaggcgtg atatgtcaag tagtggacag ataagccaac cactggatgt 60  
ggttttgagg gatTTTTTgca gtgggggtttg taggggtgcta tgccgcgctg ggtttgggat 120  
ttgaaataaa acgaagggag atgtgccacg ctcttaaatag ccagtcttct gctctaattc 180  
tgctaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaagaaa aaaaaaaaaa aaaaaaaaaa agaagaggaa aaaaattcaa 300  
agaataaatt aaaaaaaata aaaaaaaaaa aaagaaatag agataaaaaa aaaaaggggg 360  
gcccccaaaa ggttttacagc ctcttttttc 389

<210> 6655

<211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B2

<400> 6655

```

gggtcgaccg gagaccctga tacaattggt gatgacattc tggtagccac cgatggacga 60
gaaccttgcc tattgggtccg cctcggttga cgagcaggaa aatgggtctc ttcgtccctc 120
gcccttggtg ccgtcggtgt tgccgacata atcgacaggc tagcctctga cttgccttgc 180
ttgcatgata acgcaagacg tctccaccct tccaactttt aaccacatg gtgggccccat 240
aaccacagt tccacaggat caaaacctga ctctcctgta ccccccggt ttccaaagtt 300
attccccacg cttgacttcg tatgtaattc acgggtcacc ttctaatagc tctattctgg 360
tatcagacgc tatacttact ctcggtgctc tgaaccctt tctcactctg gttcagactt 420
cgagcaacta tc 432

```

<210> 6656  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B3

<400> 6656

```

gggtcgacgg gtatcatgaa cattatggtg ctaatttgag gcacatgtgt ggtaacagga 60
tagtaagatt gtcccttctc tcttttctc gcttttttgg gccttctcat tttatggcct 120
ttctctcttt gttttattcc tcaattggga caatgctcta gaaaatgatg atcatcacac 180
ttctatttat ttacaactca ttgattacaa ctcgacacta aaacatagta tgactctata 240
agaatgcctc cgggtggtgta ccgggatatg caatgagtca tcaatgatat gtatgaagct 300
ttggcatcgc caagcttagg ctcttgccaa tccttgttcc ataatccatc agatctatca 360
tgcaaaacgt gaaaacttca gaccagacca cttaacaaat catctcgtga tct 413

```

<210> 6657  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B4

<400> 6657

cgggatcatg atcatgagga atatatagga taataaggtg gtgtattacc accatgcccc 60  
ttgagctgat gtttgtttca gctagagaaa tcgttacgcc cgctcataat tccttttttcg 120  
acgctctgga gaataataac tactgggtata tcattctata tcaaagccgg cttgtgaaat 180  
aaatgatccg ccgtcttgcc ttcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaacggac 240  
gcacaaaagg attaaaacat aaagtagacg taaataaaaa atcataacat ctacaataaa 300  
gtcaacaaaa ttaaatataa atgaccgtcg ttttaaaaaa gtcattgactg ggaaaaaaaa 360  
aagagtggcc ccc 373

<210> 6658

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B5

<400> 6658

attccccggc cgactctccc acccactcct cctccccctt ctctagcaat cggcgagcga 60  
tggcgtgggc gacacgggtc ctgtcagcag tgtgcttctt cgcggcgggc gtcctcttcg 120  
ccccagatgt cttcatcggc gaccgtccg gctccggcgc caccgccgtc acggccgccca 180  
agggtgcccc cctcctctgc ttcgccacct gctggggcgc tgcgctctgg gctaccttca 240  
tcggtggaat catcatgttc aagaatctgc cgaggcacca gttcgggaac ctgcagggga 300  
agatgttccc ggactacttc acgctcatct ccgcctgcgc cgccgtctcc gtcgctgcct 360  
tcgcctacct ccacccgtgg aaggccgcct ccgcgctcga gcgctaccag cttggcttcc 420  
tcattctccg cgt 433

<210> 6659

<211> 305

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-B8

<400> 6659

gacgggcggg atcatgatca tgaggaatat ataggataat aaggtggtgt attaccacca 60  
 tgcccgttga gctgatgttt gtttcagcta gagaaatcgt tacgcccgt cataattcct 120  
 ttttcgacgc tctggagaat aataactact ggtatatcat tctatatcaa agccggcttg 180  
 tgaaataaat gatccgccgt cttgccttca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaga 300  
 cagaa 305

<210> 6660  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-C1

<400> 6660

cgggtcgacg ggcacgggag gaaggcgac gacgacgacg acgacgacgg tggcgctac 60  
 cggaagccaa agccgtccca cggcgacgac gacgaccggc ccagctacgg ccgcaagaag 120  
 aatgacgacg acgacgacga tgagaggcgg tcgcggtaca agaagcgga cgacgacgac 180  
 gatgatgaga ggaagccacg gcacaagaag tgcgacgatg acgacgacga cgaccatgag 240  
 aggaggccgc gctacaagaa acgtgatgac gacgacgatg acgacgatga cagaaagccg 300  
 cgttacaaga agcgcgatga cgacgacgac gatgatgata ggaagccacg ttacaagcac 360  
 gatgatgatg aggacgacga 380

<210> 6661  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-006-Q1-E1-C11

<400> 6661

ccgggtcgac gggccgcacg acaagcgcaa gagcaaggcc tccatggaac agggggtgat 60  
 ggacaacctc aacaaggcta cgccgcctac tgcaagcgtg aaagcaaagc cccgcagaag 120  
 cttctgaacc cgatgggcca cgagtcaca gagttagtga tctcctttga ctgatttcgc 180  
 taggatgata ctacatgagt tagaagtttg tcgtgccggg gacggaggcg agacggaggc 240

ttggcttgtg aagtgacgct tggatgcacg cgtaattttc tttacatttt ttgttctcgt 300  
 tttgactttg aggatcgcg c cataattctt ttgaactgtc aactgcattc ag 352

<210> 6662  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-C2  
 <400> 6662

gggtcgaccg gcaatgttga ataataattt tagtgatttg ttatagtaga aaatgataag 60  
 tttttgcggt gggtttatact aacctatctc acgagttctt gttgagtttg tagtgaatga 120  
 agcttttttg agaaatagag aaaccatgat atgagaggaa ttaaggagac acaaaagtgc 180  
 aagcttgttg atgccaagg caccccaaga taatatttca agaagtctca agaatctaag 240  
 cttggggatg cccagtagg catccacct ttcttcttca acaactatcg gttagtatct 300  
 gttgagccta atttttcctt attcacatga gttgtgctat ccttgcaatg tcattttatt 360  
 ttgttttgct tgatgtttga atacaatacc aagatctaaa attccttaaa gttagagagt 420  
 cttcacatag ttgcaca 437

<210> 6663  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-C4  
 <400> 6663

ggttcacaca cttttgtggt ttgtctaatt gcagggtgat gggacatttg tacaatccac 60  
 atatgaagat aaggaagaaa gagatgttta ttgtctgtcc aaaaagttct ctcacgtcac 120  
 ttttgccca agagaagata gagtccaagt ctctcacgtt ctggattcag attcggactg 180  
 cacagacata cctgactcaa aacgcacaca agtttttcat acggactccg aattgggtga 240  
 ttcttttttt gttggaaact agatttcgtg cactttccaa cccaattgga atcaccttca 300  
 aattcgtccg gagcgttgag ttgtggacga aacaatctga tgctgcagca gaatccgagt 360  
 caaactacaa gtccaaagggt gttacatcac ctccacttgg gccattggc cttgtacg 418



<210> 6664  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-C6  
  
 <400> 6664  
  
 gggtcgacgg gtattattca cgtcatgggt tttaacaagta caaaaacgac gtaacctaga 60  
 tgaggtcaca acctgaatat agtccgtgtg gttatggagc actgctagaa accaagaggt 120  
 gctgggttcg ataccatggt ctgcaagttt tttaaccaacg agggaaaaac aagtcccgag 180  
 cggaatcac ggataagttg caaaaatcct gccggcagga tttgagcttt tccgattaaa 240  
 aaaatatgca tctagtgtaa aaaaaaacat tgtgctactt ttgaaaaatg tcaatagcat 300  
 ttggaaaata tttgtgaaat tcaagaaaaa tcacgtgttt cagaacaatg ttcatttcca 360  
 taaaatgttt atgcaatgaa aataaatgtt tgcataattt aaaaaaatcc atcgaataaa 420  
 aataaa 426

<210> 6665  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-D12  
  
 <400> 6665  
  
 attcccgggc cgacgggtcc ggagaaacaa ctctgcactg cgagcatctg ctgagcctgg 60  
 agtcaggacc gaccatcgtg aaggcccga ccatgtggcg gccaaagggg gccagtccc 120  
 aggaaacggc ggctctgtcg tgggtatgtt cggcggggac ggttcggtca agcccggagc 180  
 aaccacccgt acgcgttctc ttctggaaaa aatcacacat tgcacatata tatggatgcc 240  
 tataatccca tcatggcatt gcgaagggat gcccaagtta tatacatata catagaatgg 300  
 aagtgtgtga aggtggaggg ggtcagaggg gtataggaga gcgatcagaa gccgagaagg 360  
 caaattggtg ttgtaattat ctgagtttgt agctactgcg gtg 403

<210> 6666  
 <211> 370  
 <212> DNA



cctcgattat tgcggatctg ttaaacaaag aaggcatcat aaatgttagc ttcgatgatga 180  
 tgtcatgccg gtttacagta accaggaaag atgatgacac gacggttcaa cgactacaag 240  
 aagatdddga agacaaagat ttttgctaag gattgacatg aaccggttca aatcaatctg 300  
 gggcctaattg tcggggatat tactactggg cgtaaaccgg cctacctggg ccgggttaac 360  
 ttcattagta gttcaatggt gttaaagccc aaagaggcag ataagggccc aaggcctaaa 420  
 atcggtttag aacctat 437

<210> 6669  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-E5

<400> 6669  
 aattccgggc gacgggaggc tccaaccttc ccttttcatg caaattdaat gataatgaaa 60  
 ccttagcttc ttatgctaatt ggtatctatg attactatga tgtggaacaa atagaaaaat 120  
 ttgttgcttt tatgtgtgct tatgagattg aatctatggt taaagcattt gacgattttg 180  
 attattcggg ttatagacca gaaaattttg ctatgcttag atattgctat gaaaattatg 240  
 aatacaatta caatattaat gcatttattg agaaagtctc ccctgtccaa gaagagacta 300  
 atattttgca ggaagctatg gaagaagaaa ttgatgaaac tgtgagctca ttggatgaaa 360  
 aagatgatga ggagagcgaa gaacaaaagg aggaagagcg gattagctac c 411

<210> 6670  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-E8

<400> 6670  
 gggccgacgg gctatcttag aagaggtttc aatcgattat gatgagaaca aagttgctac 60  
 ttatgataat tattgtgatg atatgtatgc tatacaaagt agtgatgatt atattaaaac 120  
 ttgtcatgat tatgattacc ctttttctga atattactct tttaatgtgg aaacaattta 180  
 tagtattcga gttttctatg atactccac tattccgaat gagaagaatt ttgcttatgt 240

ggagagtaat aaaatttcta tgcttgtaga tcatgaaaat aatgctttat gtaatggtca 300  
tattgttgaa ttcattcatg atgctactga aaattattat gagggagtaa tatatgcttg 360  
taggaattgc aataatatca agtttcctct ctgtgtgctt aaagttttta agttatgttt 420  
gttttgc 427

<210> 6671  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-E9  
<400> 6671

taaggtctag aattcccggg ccgacgggcc gtttaagcat attcatattg tccctgggtg 60  
ttcatatagg gtgaatTTTT ttggtttcca ataagtttcc caacaagaat aagcaatgaa 120  
gtgtaagcca agtcctcaaa agattccaac ctgaagaagc caagaaccaa gtcctgtgtg 180  
ggccaatccc caattaatgg cgaatcctaa ggtcaaccca agaatggcgg gcgatgttgc 240  
gtgcaacccc taatccaaga caccaataat aacccttaaa ctaatcctca agtccaagac 300  
attgataact tccttaaggt tgcctcaact cctgtggaca tttttgcccc taattgcaca 360  
tgccacttac acgtgggacc gaccagtat aaagaaaaag aactctctgt cacacctcac 420  
tctcac 426

<210> 6672  
<211> 392  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-F1  
<400> 6672

cgggtcgacc ggcgggatca tgatcatgag gaatatatag gataataagg tgggtgatta 60  
ccaccatgcc cgttgagctg atgtttgttt cagctagaga aatcgttacg cccgctcata 120  
attccttttt cgacgctctg gagaataata actactggta tatcattcta tatcaaagcc 180  
ggcttgtgaa ataaatgatc cgccgtcttg ctttcaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaa acaaaaaaaaa aaaaaaaca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300

aaaaaaaaat aaaaaaaaaac aaaaaaaaaa aaaaaaaaaa ataaaaaaaa attttaaaca 360  
aaataacaaa acaaaaaaaaa aaagggggcc cc 392

<210> 6673  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-F2  
<400> 6673

cggtcgacg gggaaatga aaaaaaaaaa aaaatataaa aaatgaaaaa gaaaaaaaaa 60  
aaaaaaaaa aaaataaata ctaacaaaag aatcaacaca ataaaaaca aaaacaaaca 120  
aaacaaatcc tttttcgaag acttaaaaaa aaaaaaatta aataagaaac caatccataa 180  
catcaaatc gtaaaaaaaaa aacaaatca aaaaacataa ccgccccccc caaaatttcc 240  
acctttactt tcccgtagaa cccaattaaa accccccac aagtggcccc ccaattttat 300  
ttcagggcct cttttttaa aaattcgacc cgtgaaaaac ccctgttttt cccaatttta 360  
ccccttttaa aaaaaacccc tttttccaaa tttggataaa cctaaaaggc cccccctttt 420  
ttccccttcc ccaaattttt ccccc 446

<210> 6674  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-006-Q1-E1-F3  
<400> 6674

gggtcgaccg gaagcggccg tcgatcttag gccactgacg atggaggacc tgaggcaggc 60  
caaaaatcag gtcgccgcga gtttcgccgc ggagggcgct gtcatgaacg agctgaagca 120  
gtggaacgac ctctacggcg aaggagggc gaggaagaag gagcagctga cctacttttt 180  
gtagaaccgg aaggatgggtg gatgtgtcgt gttgggcaaa tcgctgaagc cttggcagag 240  
catgagcata catatgttgg tgggaaaagg agagaggatt tcctgtgagc aaccgtgagt 300  
taggatcttg gagtgaatgg actccttgag atgtgtggca gggggcattg gatcatgtac 360  
gattctttta tacgaacaag tattgtagtt attcattatt atatatgttg tacctggttt 420

gttaacctgt gtgt

434

<210> 6675  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-006-Q1-E1-G1  
  
<400> 6675

gggccagata tccgggtcga cggggatcta atataaataa atatgtaact gagaaggcct 60  
ttgctgaatt aatgttgcca tgcacgcaca ggagttcgcc tgaatttcgc agtatatttg 120  
ctggtgaatt aatcaaacag atgggaactg tcagtgaaca catcaaagca atatcacgaa 180  
atggtgccaa acatgttggg ttagttcctt caggaaatga tgtttcatcg aacaaatcca 240  
gtggtcgtaa aggaattcga ggtggaagtc caaatattgg caggcgagtc acggttggtg 300  
atgatccaac tcctccttca gcatctgctc tgcaggcaat agtgtggctg cgctccaat 360  
ttatcatcag gctgcttcaa gtaatcctgg cagatanggg catgaggcat acatttgctc 420  
ctgcgatact aagcctgctt gcggcacgca taa 453

<210> 6676  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-006-Q1-E1-G10  
  
<400> 6676

tccgggtcga cggggacatc gacgatgagt tgccgtcggt cagcaccac aagaccatcc 60  
tcggtcactg ggaggatccg gtgctcgaag tctgacatct aagtgtatgg ttgtgtcttc 120  
tcgcattcgc gttgatagtg tagttgtgat gttgccaga agaaaatatg agacacagga 180  
agagccgatg agatgagata gtgatcgctc ctgttaatat cgtggacgtt cggaagaag 240  
ttgtagattc tagtaaccga tctggcctag ttttggtcat cctagtgttg gccttgggat 300  
ttttgcagtg ggaggatccg actcactgtt tcgccttga ccttcatttc ttcactttta 360  
gttacattct ttttagcttt tacttggtt tttcgatgt acctttttat tcaacacatg 420  
tccaagtttt t 431

<210> 6677  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-G12  
  
 <400> 6677

tcccgggtcg acggggatga cgacccctct ctattgccag agcaaccagg caagcccccc 60  
 ctttgatcac cagatatcgc ctactcttct ctatactgct tgcattagag tagtgtagca 120  
 tgttactgct ttccgtcaat cctattctga tgcatagcct gacattgttg ctacacctgt 180  
 tgatacctta cctgcaatcc taaatgctta gtataggatg ctagtttata atcattggcc 240  
 ctacattctt gtcagtctgc cttgctatac tatcgggccg tgatcacttg ggagggtgatc 300  
 acgggtatat actatacata catacatact atacagatgg tgactaaagt cgggtcagct 360  
 cattgagtac ccgcaagtga ttctgacgat ggggctgaaa g 401

<210> 6678  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-G2  
  
 <400> 6678

gggtcgacgg gcatctagta acaagaatat gaaatcgtaa atagcgaaaa attcttgtct 60  
 tgcgcggtct aagtctaagg aaataaaaaa aattcgctta tacaatttca tctacatcga 120  
 atttatatat cagaatagcg gatagaggca tcattaaagg agtcaggctct acttacttta 180  
 tgcttcttcc caattttatg gtggatttga taagaaccct ttttgctttc ttgataaata 240  
 atcgacaaaa aaagcgtttt ttttatataa cctgcttggt ttattataat tataacaagt 300  
 cctatatgga aatgcccgct aaagagaaaa tctgtttgat tgtctctcgg ccaatatcga 360  
 tttttagaaa gaaaaaacia gaattttctt ctttttttat taacattaag aaaaaagaa 420  
 tataac 426

<210> 6679  
 <211> 374

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-H10  
  
 <400> 6679  
  
 ggcagttcca gcttaaaaga ctcatgctg cccgctggtcc tccgccgggg aggccgccgt 60  
 tctcgcgtcc gagctctctc ccgtactagg gatcttcttc cccactccac cgcttggttt 120  
 ttctgactgc gaagtttttg gcctcttcgg gtcttggttt ggaggagggc tgattggggt 180  
 agcagatccg ttcttgccgg agagcaccac ttccagcccc gtatttcctt tgtgggtttg 240  
 caaacctgc acctcatcag aaggacgttt gcgattggca tcagaatcct ccgtctccat 300  
 cttctcttgc ttaggatcat catctcctt cgtagcttgc tggcccgacc cttgttggtt 360  
 tgaagtcctg ttcc 374

<210> 6680  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-H12  
  
 <400> 6680  
  
 cggggagcag aaggaagaga tggactggaa gggctcgtgt cgtcccgtac atatagccga 60  
 gggaggccaa ccgtcggcct ccatgatcac aggtaatcat gaccggtttt gcatgcaggg 120  
 acttgtcaat tcgtgcagtt gccgaggcat cgtggggagc caggatgccc acgtccaatc 180  
 aaccgccacg cgtctcccaa ggccgcaggc tattggggccc gtggcgcttc gtacttgccc 240  
 cttcgcttcc ctgctaagcc aagtctgggc gcgccttggg cccgggggct actgtcagca 300  
 ttctgggaac ggggttacct agacttgctt gcctgcggcc tgcagcgtgg ctcaggagc 360  
 ggcccagtac ggcccatctt catcagcgca tgccca 396

<210> 6681  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-006-Q1-E1-H2  
  
 <400> 6681



cgggtcgacg ggggaatggt cttttccatc cccttacata ttgaagttca tcacaaagct 60  
 cttgtagctc gatggaagcg actgaaggat tctgtcaatg accgcgtcat ccgggagatt 120  
 aactcccagc tgagttaagc ggttatgtaa tccagacata gtgagtatgt gctcactgac 180  
 agaactatct tctccatct tacagctgaa gaacttgtcg gaggcttcat atctctcgac 240  
 ccgggcatga gcttgaaaaa ccattttcag ctcttcgaac atctcatatg ctccgtgtct 300  
 ctcaaaacgc ttttggagcc ccggttctaa gctgtaaagc atgccgcact gaacgaagga 360  
 gtagtcatca gcatgtgtct gccaaagcgtt caaaacatcc tgttctgcaa gggaaac 417

<210> 6682  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-H3  
 <400> 6682

tcgacgggag gtgctcgagg ggcccacgat ataagattca actacatcat aaggctcttg 60  
 taactcgatg gatccgagtg aacgattctg tcaatgatcg cctcatcctc ggagattaac 120  
 tcccatctga gttaagcggg tatgtccacc agacatagtg agtatgtgct cactgacaga 180  
 actatcttct tccatcttac atctgaagaa cttgtcgacg gcatcatatc tctcgaccca 240  
 ggcgatgatc tgatatacca ttttcagctc atcgaacatc tcatatgctc cgtgtctctc 300  
 aatacgcttt tgggtccgcg gatctaagct gtaaagcatg ccgcactaaa ctaaggatta 360  
 ctcatcagca atatgtctca caagcgttca taacatcatg ttc 403

<210> 6683  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-H4  
 <400> 6683

cgggtcgacg cggaagactc gacaatggtt gccacgcgg tggggagtag gagggtttac 60  
 tgggtccggc gccgtcgctg gaaaataata ggaggtgtgg gtgagtagag gaatggcctg 120  
 gccagcaatg aagtagggta gggcgggtgc gcccggtgcg cagcacagcc ggccacggga 180

ggcgggagca ggcagtccca ccagagctgg tttgggcggc tggagcaaga agatcagata 240  
 ttgaagaagc agcacggctg ttagattaac atccaacgat cactgctgct acaatcgttt 300  
 gtggactaac ttgataagac caaagtacac gtcaacctag tatacccaca aatcagcctc 360  
 caaatctgtc ccaaacaaca taca 384

<210> 6684  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-006-Q1-E1-H6  
 <400> 6684

attcccgggc cgacggggccg gcacaacgac acggagctcc acctcgccgc gcagcgcggg 60  
 gacctcgacg ccggtgcgcca gatcatcgtc gaaatcgacg cgcagatgac cgggactggc 120  
 gaggagtctg acagcgaggt ggcggagatc cgcgcgcgccg tgctcaacga gcccaacgag 180  
 gtcggggaga ccgcgctgct catcgagct gagaaaggt tcatcgacgt cgtcctcgag 240  
 ctgctcaatc actctgacaa ggagagcctt gcgaggaaga acaaatcagg attcgatgct 300  
 ctgcatgtcg ctgcaaagga aggccaccga gatattgtga aggtactcct ggaccatgat 360  
 ccatcccttg ggaagacgtt tggccaatca aatgtgactc ctctgataac 410

<210> 6685  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-007-Q1-E1-A10  
 <400> 6685

ggtctaaata ccgggtcgac ctcatcaaga aggctacagt cttccactat ggatcaataa 60  
 gcttgattgc cgagccttgc cggacagcgc atctgcacgc catgaacgtt gccaaagacg 120  
 ccggcgcgct tctctcgat gaccgaacc tgaggaggc gttgtggcca tcccttgacg 180  
 aggctcgac caagatcttg agcatctggg accatgcaga cattgtcaag gtcagcgatg 240  
 tcgagcttga gtttttgact ggcataact cgggtggagga cgatgttgcc atgaagctgt 300  
 ggcgcctac cttcaagctc atgcttgta ctcttgaga tcaaggatgc aagtactata 360

ccaaggattt ccgtggaact gtcccatcct 390

<210> 6686  
<211> 320  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-007-Q1-E1-A11  
  
<400> 6686

atgagcaaat gaaagactaa aggatttcgt gaggatgagc atgatacttt atggtttgag 60  
gatcacgtat atgtgcctaa tgaacccgag agcaggaagt tgattctgca agatgcccatt 120  
gattcgccgc attcaattca tccaggaaac accaagatgt atctggatct gaaggaaaga 180  
ttttggtgga caggaatgaa gaaggatatt gccgagtatg tagcagtttg tgatgtatgt 240  
cggagagtta aggcagagca tcagaagcca aatggattgc tacagccatt gccaatatcc 300  
gaatggaagt gggataagct 320

<210> 6687  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-007-Q1-E1-A12  
  
<400> 6687

gagatcgtag agaaaaagga acggatgagc ataggaaaga ctaaaggatt tcgtgaggat 60  
gagcatgata ctttatggtt tgaggatcac gtatatgtgc ctaatgaacc cgacatcagg 120  
aagttgattc tgcaggaggc ccatgattcg ccgcattcaa ttcattccagg aaataccaag 180  
atgtatctgg atctgaagga aagatttttg tggacaggaa tgaataagga tattgccgag 240  
tatgtagcag tttgtgatgt atgtcggaga gttaaggcag agcatcagaa gccatatgga 300  
ttgctacagc cattgccaat acccgaatgg aagtgggata agccaggcat ggactttaac 360  
actggattgc ccaggacca a 381

<210> 6688  
<211> 417  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-A2

<400> 6688

cgggtcgacc ggttcctaca acaaacttta tggaaattat aataagatgc cctctgattt 60  
tgaatctaatt attaaaggat ttatttcttc gcaaagaat tttaatgcta tgattgaaga 120  
aaaattgctt aagattgatg atttggctag gaatgttgat agaattgctc ttgatgttga 180  
tgctttgaaa cttagatcta ttccacctaa gcatgatatt aatgagtctc taaaagccat 240  
gagaatttca attgatgagt gtaaagaaag aactgctagg atgcgtgctt ccaaagatgc 300  
ctttattaaa tcttgttctt ctaattctta tgaaaatcaa gatgaagatc taagaattat 360  
tgatgtgtct cccattaaat ctttgttttg caatatgaat gtagatgaaa ctgaata 417

<210> 6689

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-A4

<400> 6689

cgggtcgacc ggcaatgcaa agtttgtcag caaaagtcag aagaaccttt ggtagacctt 60  
ggatgcagat gtcgtggtga tctttcaaaa gtcaccgca cttgtattga tgtctggttc 120  
cgtactagag gttcaaacaa gtgtgagata tgccagcaag ttgctgtcaa catacctcct 180  
ccagagacac aagcaagtgg atggtttagc ccactctggg ttgcatttgc aattctgatt 240  
ggtggtctat tattggatgt gctgatatct gtttctcttg gtgtttccgc acttcctgtg 300  
aacataataa ttggtgttct gattgttctc ggcttgggca ctgcccttcg actagctctc 360  
gagtgtgcc aggagtttgg ctcgaggaga agcatgccaa ggatggaaaa catggcaccc 420  
agtgggttac 430

<210> 6690

<211> 275

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-A6

<400> 6690

ccttttggtac accttggatg cagatgtcgt ggtgatcgtt cacaagctca ccgcacttgt 60  
attgatgtct ggttccgtac taaaggttca agcaagtgtg agatatgcca gcacgttgct 120  
gtcaacatac ctctccaga gacacaggca agtggatggc ttatcccact cggggttgca 180  
attgcagttc tgattgggtg tctagcattg gctgtgctga gaactgtttc acttgagtt 240  
tccgcacctc acgtggacat cataattggt gttct 275

<210> 6691  
<211> 315  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-A9  
<400> 6691

attcacgggc cgacgggtac cggaacacgc tcagcgcta caacttcgac cgcttcaagc 60  
ggctccatac caagatgatg aaggacgttg acgacatgct cgcctatgac attcccgacc 120  
tgctcaagca gttcaggaac ccctacgagt gagtcaactc aatgaccatg gatggaaatt 180  
ccagacccca attttatttc tcgtgggggt cagcggaaac ttgaacttga ggtgtatgta 240  
tgttaacttt gatcataacg ctttgatgta ctatataagt atcagtcaat caatatttac 300  
atgacctcgt tgatc 315

<210> 6692  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-B10  
<400> 6692

ggtcaagaat atccgggtcg acgcggtatc atgaagaaca tgggtgctatt tcaaagcaca 60  
agcgtggaaa agggatagta acattgtccc ttctctcttt ttctccatt tttttcattt 120  
tttcaatttt tcattttttt tgtttgggat tctttggcct ctttttttat ttgggcttct 180  
ttggcatctt ttgtcacat gggacaattc tccaataatg atgatcatca cacttttatt 240  
tacttacaac tcaagaatta caactcgata ctagaacaaa atatgactcc atatgaatgc 300  
ctcaagaagt gtacctggat gtgcaatgat ctacgtagc catgacataa aaaactggac 360

aagccatgaa aacatcatgc tagctatctt atgatcatgc aaag 404

<210> 6693  
<211> 176  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-007-Q1-E1-B11

<400> 6693

ggcgggtgacc gagaccctga actacaacaa gcaacatanc gtggacatgc accggctgcc 60

ccctcaggtg cagaacctgg taaatggctg gtaagacaga accactgctg ttagtagtac 120

atagataggc ctgtaatttg tgacactaat cctttttcct cctctccctg atgcaa 176

<210> 6694  
<211> 171  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-B12

<400> 6694

gaggtgttcc cttgggggtat gttcgccgc attcatggcc tgcccaaagc cattacctct 60

gcaatttgta ggtcaaccac tacgcttggt atctgtatgt gtaatgtgat cttggtacta 120

tacaacttgc cacttcccgc agtataagta atattgagct tctgaatgtt t 171

<210> 6695  
<211> 411  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-B2

<400> 6695

cgggtcgaca cggcgtcgca actgggtata tgtcacgtca gtacccccat tcctatccag 60

gagtgggaat aggcctcag cgccttaatt gcaccagatg cctgccgcgt cgtacttgca 120

tcagacgcc gccacgcat tcgccttgtc cgcggaccga taggctcaac cgctccttg 180

gccaagtgt ccaccgggcc cagtggagga acatgcccg cgcattctcg agctgggtgat 240

ctccgatgaa atagccaact tggatgaacg cctgcaaaca cgagttcagg cagagccaag 300  
agctactgta cgcaacggct gctgggtcatg gtctcatgga cgcgtttcat tttgttgagt 360  
cgttttcgacg tggatagcaa tgtatttaca gcaattatag tattgctctg t 411

<210> 6696  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-C1  
<400> 6696

gggtcgaggg gctcgaagcg aactgctgcg gcacattctt ggcattgatct ggagatagga 60  
cctgaagccc ctctaattctt caatgccgtt gttgagatca caaaggggag caaagtcaag 120  
tatgaacttg acaagaagac tgggatgata aagggttgaca ggattctgta ctctgccgta 180  
gtctaccacac ataactacgg tttcgtacca cggacgctgt gtgaagatgg agatccaatt 240  
gacgtcttgg tcctgatgca ggaaccagtc atacctgggt gctttcttcg agctaaggct 300  
attgggctta tgcccatgat tgatcagggt gagaaagatg ataagctcat tgctgtttgc 360  
gttgatgatc ccgagtaccg tcatctcaac gaccttaagg agctctctcc ccaac 415

<210> 6697  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-C10  
<400> 6697

gggtcgacgg ggtcggttac atgagcggcg gctgcaagag tgatgatgga agtttgagtt 60  
gtggatattc aagttttaga ggaaaaaggg caaccatgga agacttcttt gacataaaat 120  
catctaaaat tgatgataaa caaataaatc tctttggaat atttgatggc catggggggt 180  
cacgtgctgc tgagtatttg aaggagcact tgtttgagaa cctcatgaaa caccacaat 240  
tcatgtcaga taaaaatta gcaataagtg aaacatataa aaaaactgat tcagatttct 300  
tggattctga aatcaacact cacagagatg atgggtcaac tgcacgcaca gcagttctgc 360  
ttggaaatca tcttt 375

<210> 6698  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-C11

<400> 6698

ggtacccgag gatacaccat gcaatagacc actcgggtta tgttgccata ggcgacacgc 60  
 aaagcccgca ctgtcagatg ggaaaacccc aaacgtcttt ggacgatgtc cagaaacggg 120  
 gaacttgaaa gaataagaac acaaacatct gagccaccgt cagactcatc aacgtcggag 180  
 ccagcgttgt caggcgctg aatagcatgg gatcagtcca tcatcgaccg cagcttcact 240  
 tcacttcagt tcagctcagc atactatgga gaccacgggg aatgtgagag tactgacata 300  
 tgaccaatc gcgacaaagc cttgtgctgc aac 333

<210> 6699  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-C12

<400> 6699

gggtcggccg ggcacactat tcacaggcat catacaccca ccacatacct tcctcaaaac 60  
 agcaaccata gctacctatc atggcatttc catagccatt ccgagatata gtgccatgca 120  
 actttccacc attcctttca gtatgagacg ctccatgatt gtcattattgc tatgcatgat 180  
 catgtagttg acattgtatt tatggcaaag ccaccattca tatttctttc atacaagtca 240  
 ctcatgagtc attgcacatc ctggtacaca gccagaggca ttcatataga gtcatttttt 300  
 gttccaagaa tcgagttgta attcatgagt tgtaagtaca taaaagtgcg atgatcatca 360  
 ttattagagc attgtcccag tgaggaaagg atgat 395

<210> 6700  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-007-Q1-E1-C4



<400> 6700

gggtcgacgg gccacggcga tgtcgtccta ggaggaagca agggatgcgc ggcgcggccg 60  
gggcggcggt gatgcgcgcc gcccggtc tctgcagatc tgactgangg tcagcaagtt 120  
ttggaagata atgcgcaaac ttttaaatta gtttcttcgt ttattctctt agattgattc 180  
tcttggggta gcactggtag ctactccctc cgttcggaat tacttgcgc agaaatagat 240  
gtatctagac atattttaat tctagatata tccatttccg agacaagtaa ttccgaacga 300  
acagagtaag ttctaagtgt agacatcttc aatagatgat ttagatgtaa aaataaggaa 360  
aacgattgcg cgctcagtcg gctgatgacc 390

<210> 6701

<211> 197

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-C8

<400> 6701

ggtcgacggg atcaacgaag ggatacgga agaccataac atgtatgtac ggtcgatcta 60  
tttcagaacg catactatcg gtctcgtaca ctactacag ttgtcttcga cttatgacgt 120  
catcagtggg agcacgggtga ccttgcttaa catccgtgca ctcaacatta tgcacgtttc 180  
actcgcatgc ttgttac 197

<210> 6702

<211> 342

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-C9

<400> 6702

gaagaagatc taaaacgtct cctgtgaacg gtacttcggt ttcgggtgtg agatcgacga 60  
ggagacatcc aacaaactgg aaggcattcc tgggtgtttg tttgtgcttc ctgattcgta 120  
tgttgatcct gagcacaagg actatggagc tgagcttttt gtgaatgggg agattgttca 180  
gaggtctcca gagatgcaga gaagggtgga gcctgtgccg cagagagcat cagataggcc 240  
tcggtacaac gacagaaccc gctaccaacg gatgacggag aaccaatagc ggtgatgagc 300

cgagggtgctc gattgaagat caaataacaa gccctggtgg tt

342

<210> 6703

<211> 327

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-D10

<400> 6703

gtatgacaga gaatatcgat atacgttatt ctacagtatt actctacaga tccatcagct 60  
ctaagtaaac tgcgtataaa tcatgtatgt ataacgtatg tggtactgat gttacaagtt 120  
gagtccatgt gtgacggtgc ggctgtaaca caacatgtga ttcataatat ccacatgcct 180  
caccatgtaa gaaatatgcc ctaaaaaaca aataataaag ttgttaatta aaattccata 240  
ataacatgat aaatgtttta taaatcaatg ctaaaattgt aaataaccga aaacttaata 300  
aaatgtgtga atacggcccc ccaaaag 327

<210> 6704

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-D12

<400> 6704

gggtcgaccg gaggaagaga agaaaaagca gctatttcac ctgggtgtcgt aataaccact 60  
gttttcgggt ttgaaggcat aagcgcagca gagatcttct ttcatttaag aagaagccac 120  
cgtaaagaag aggaaacaag gcgtttaagg gacaccgact cccattatct tctccaggcc 180  
tgctttggct aaatcgacgg aggcttagct tattatgttt cgggcgttta gctagcttag 240  
agaataaaga aatctatctc taaaggggga gcggtacgac tatttttaggt tagaggaagg 300  
ttgaagagag aatagctaaa atagccagtc gggtaggcaa gtgcgggtgg ctgtggtcaa 360  
agtgaatatg tcctgtttcg gtt 383

<210> 6705

<211> 422

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-007-Q1-E1-D4

<400> 6705

```

cgggtcgacc ggatactaaa aaaagattga aaaggatcaa attttgtcat atcacgaaga   60
aatctatccc ttccatagca ataacaagaa ttaaaaaaaaaa gggaatgaca aagcatctgg  120
gaataaacga ttaattttcta tcaataaacc tgctaaagca ccaaaccata gagtacttag  180
cacgggtgct acagagagat atgtttttat atcccgcatt gaaaatcctc cttccttggt  240
ggaatacata tatgatcata aactcttgcc caagattggt atgctatata taaaatgaac  300
catatcgacg aaattttcct atccctaaaa aagaaaaaga tgaccccttc ttcctatata  360
ttaccaagga aaagtaatcc ttcttttata ngcgaaatta tattggattt tatatgtata  420
ta                                                                    422
  
```

<210> 6706  
 <211> 335  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-D9

<400> 6706

```

agctagataa aaaatcgctt ccatttttga agacgatggc tgagggttca ggggtggcctt   60
tgaatagata tgaaacactt gctttgctaa tcttttcttc ggttcttgca gtggatctat  120
ggttttggga gtttctcggt gaaagcagtc tgaattgggc atctttggct ggttcctgga  180
tcgatcaatt tagtgctcca ttttgacaaa gagtttacia aaccatttac tgttgcagtt  240
agtttcagat attagttgga gtgctgtcta tgcaaacttg tagataacaa tttattgaat  300
caacttgga tgagattagt gagaaagttg aagcc                                     335
  
```

<210> 6707  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-E1

<400> 6707

gggtcgacgg gtctgccaag gtgacatcac caaggtactc accaagatgg tgcactggaa 60  
 ccccgacctt gacttcgacg cctcgctgga cagcttgccg gaggggtgtgg acctcgcggc 120  
 gctcagggag cgtatcaagc ccgatcatcag ccatatcggc ggaatccagt ggatagaggg 180  
 ccagcaccga gattaggcac cctgtctcgc actgccgctg caggttcctg accaagacat 240  
 ttttatcttt agttagaacc gcagcaacaa atgatgtaat ataactctgc agtacttttg 300  
 agacaatgca tgttaatttc ctgtccgac ttcgctttgt acgttcaccc tacgctaata 360  
 gggtaggctt gccggcgcggt aaaccacagg cggcaccttg aggatggatc cccaat 416

<210> 6708

<211> 337

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-E10

<400> 6708

gtcgtagaac gtcacagtca tctacgcccg cgccaagcag tacgccgacg agtagtaggc 60  
 ccacgacaat gagttgggtc agcttaagcg tgaagcccgg atgaaggggtg ggttctatgt 120  
 cagtcttgaa gcgaacctgc tgtttgttgt cagattcaca cgtatcagtg ccatgcaccc 180  
 aaatagcaaa aagatctttc agctgttgcg tttgtgacac atattcagtg gtgtgttcct 240  
 gaacgttaac aagggcatca tcaacattca ccgcatggtc tatccatatg ttgcatatgg 300  
 gtacccgaac ctgaatagtg tgaggagatt tatctac 337

<210> 6709

<211> 275

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-E11

<400> 6709

aacaaaaaaaa atagaaaaaa aaaaaaaaaa aaataaaaaa aaaaaaaaaa aaattaaaaa 60  
 aaaaaagaaa aaaataaaaa aaaaacgggc ggcccaaaag attcaaactt aacttacctt 120  
 taaagtcaag ttaaaacccc taaaaaattt tcaccaaatt taaattaatg ggctttcttt 180  
 taaaaagttc ttaacgggaa aaaccttggg ttaaccaaatt ttaacccctt tgaagaaaat 240

cccccttttcg caatttggcg taataacaaa aaggc

275

<210> 6710

<211> 421

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-007-Q1-E1-E2

<400> 6710

ggtccagaaa atccgggtcg accggggcgc ggcaccagcc actgaagccg gggcgtctca 60

gccggctcca ggcgaggact tggaagccgc tctgccaggc ccgccgccag gaactccacc 120

tccgtctgcg atcaccagc aggagactcc agcttctccg gctgcggctc cagaagatga 180

tctgcctctg cctcctcccc ctccactgac ccagcatgag gaggatggaa cgccagaaga 240

tgatctgcct ctgcctcctc ctctccact gcccagcag gaggctggag cgccangttc 300

agcgccagag gcaggagccg tcgatgacaa gtgggcagga ggtggcgatg acaagtgggc 360

gggaggcccg gatgacaagt gggcttagtg gttgcttaag gcgtggaact gaactgaact 420

g 421

<210> 6711

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-E9

<400> 6711

gtcaagaata tcgggcccgc gcggagaaga agaagtccag cgagaacgctc aaggtcatct 60

acgcccgcgc caagcagtag gccgaggagt acgatgccca ggacaaggag ttgggttcagc 120

ttaagcgtga ggcccggatg aagggtgggt tctatgtcag tcctgaggct aagctgctgt 180

ttgttgtcag aatcagaggt atcaatgcc a tgcacccaaa gaccaagaag atcttgcagc 240

tgttgcgttt gagacagata ttcaatggag tgttctgaa ggtaacaag gccaccatca 300

acatgctccg cagggtcgag ccatatgttg catatgggta cccgaacctg aagagtgtga 360

gggagttgat ctacaaaag 379



cgggtcgacc ggcaactgaa gctctcaagt agtctaagtg aagtgaaaga acttactgca 60  
 taatagatac aaacttcaca gcaagatcag cacccaaagc caacaatctg aaacatatatt 120  
 tgtcacagat aagatatggt gctgattgtc ttaatgatat aagtttacia tcagaagccg 180  
 ttatacagaa aacaaacaag tattattgga gcctggatga tgacatcgaa ggaatttctg 240  
 ctttgagcaa tgcaggccat gaagaacaac aactataaag acttgccaca aagaaattgt 300  
 tctaaacatc caacgataca tgtgtctaac atagctcttt ctatctacat gccttgctca 360  
 taatattgta aatgatcggt cgtaagctta ttagaaaaca tgtatcatca gcaaccatcc 420  
 atccatcatc aattcaatac tt 442

<210> 6715  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-007-Q1-E1-F3  
 <400> 6715

cgggtcgacc ggtcctatgg agccatagca cgacgacttc ccgactatct tccaacttag 60  
 tatgatagaa gactttaaaa ttctcttttg ggaaacaaag tgcaagtaag tgaataaaat 120  
 ttcctttgtc ccaactgttt aagacaaaca aatgaaagct aaactcctct gagacctctt 180  
 ttagacactt cctatggata cgtagtagaa acaatcataa ctttctacia caatatgtag 240  
 aaagtgttac tttctctatt ctcatthaaga aacattagta acaccaatth tatttacact 300  
 ttttttgaa atgtcattta cactthaatt agatgtatat gttccttttt tattgctaac 360  
 cgggccgacc gatgggtgat gactagtaaa attcatthaag taaaattcgt tttgtcaaat 420  
 caagaa 426

<210> 6716  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-007-Q1-E1-F9  
 <400> 6716

ggtcagaata cggggtcgac ggggatgaaa gatgccggcg ccgacatgcc actaagatcc 60

cataggctcg ttgtgcacgt ccctgctctt cctgagggca ccgctcgggc ctcaacatag 120  
caggaacagc ggtactgctg gataggcgaa agagatggca ttttcgatct gaccagactc 180  
atccttgaca ttctcatata taaagatctg cgggttgactc cagctccggc accattgatg 240  
gtgtgagcta attttcgttg gtcaacgctg taggttctac agtgctaattg cgaaaatctg 300  
agatctgaaa atgtcactgc ttcccggtg ataccctaata catccatgca gttgggtgact 360  
taatcaatcc gatggaattt gctgct 386

<210> 6717  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-G1  
<400> 6717

ggtcgagcta tccgggtcga ccggggacaa gacggcgctt tgggagccgg accccaagac 60  
cggcgactac cggccggtga ccagcaccaa ggaggtggat ccggctgacc tgcgtgcaga 120  
gatgctcaag cggaggttgc tgcagcagca atgatgcgcg tgctgcaaac acgctaccgg 180  
cccatagggt cataccgtca tgtacaacaa aacgttaacg ggcgtgctaa actatattta 240  
ctagggtgcc tgtcggacaa cgacttgtca ggaaattgct tcctgtaagt atgtaagtct 300  
tcaacagaca cttacatatt tacttgttct acgcaaactg tccaaaattt ccagtggtt 360  
tcgcacacca cgacaatatt tcagcacaaa aaaaaatgaa aa 402

<210> 6718  
<211> 366  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-G10  
<400> 6718

acgggggggat gcatcaaaag gcatcccttc tttcgtcttc gtctatcggc aactttactt 60  
ggagcaatat ttttgctcgc cacatgatat gtgttttgct tggagcgtat tgtatgatct 120  
tagtggttgc tttttatatt accacaatca tccttgctgt acacaccttt tgggagaaac 180  
ccacttgatt ggaatttatt agaatactct atgtgcttca gttatatctt tggagctaga 240



tagttttgct ctagtgttct acttatatct tttagagcac agaggtggct taattttgta 300  
gaaattgttg atctctcatg cttcacttat attattttga gagtctctta gaacagcatg 360  
gtgttt 366

<210> 6719  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-007-Q1-E1-G11  
<400> 6719

gggtcgaccg gaacactgaa gaagcanaga gaacactggc ccgctttcgt gagaattcaa 60  
ggaacaaaat taccaaagga acggccaaaa aaaaaaaagg caattgccga aaaaattacc 120  
aatttcaaaa ggctggttca aggtggcaac ccggtggcaa tgccaaattg gaataagtct 180  
gagcaagaga tggaggatgc aggggtcact ccggttacta agagctggcc cccaggtgc 240  
agaacttggc tctatgcgca tggggggacg ttggaccga agacaagcct agtttcgaag 300  
aangcaagtc taaaangagc agaacaaaag ttacttgacg caatagaaga tgctcgaaag 360  
ggggtgttca cgccaac 378

<210> 6720  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-007-Q1-E1-G12  
<400> 6720

gggcccaccg ggggtccaac tgtatgagtt catccctgga agacgtgatt cgtcagtttg 60  
tcccgtgaa gggcgcttc ctgatgctaa gaaaggcgca ccacatctga gggacatctt 120  
ttatcgaatg ggcttaacag acaaagatat tgtagcacta tctgggggcc atagtctggg 180  
aaaggcgcat cctgaaaggc ctgggtttga cgggtgcatg actcgtgatc ctctgaagtt 240  
tgacaactca tactttcttg agctactgaa aggggaatca gaggtcttc tgaagctccc 300  
tactgataac gcattgttgg atgatgctga atttagacgc tatgtggagc tttatgcaaa 360

ggacgaggat gcttt

375

<210> 6721

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-G2

<400> 6721

taaaatatca actacctgat catgcaaaaa ccattatgac attaatggaa cttgtcataa 60

taaatgaaac ggtgaaaatt tgcattggcaa tatatctcaa aatggctatg gaaatgccat 120

aataggtagc tatgggtggct gttttgaaga acgtaaataa tgggtgcatg ataccggcga 180

aagttgcgcg gtataataga ggctagcaaa gtggaaggat gagtgcgcgt atatccatgg 240

actcacatta gtcataaaga actcatatac ttattgcaaa agtctacttg cctcgaagc 300

aaagtactac tacgcatgct cctaagggaa gggttggtac gagttaacta tcgcgcgatc 360

ccgacctcca ctcataagga agacaatcaa aagagcaact catgcaacaa atttgtcaca 420

caact 425

<210> 6722

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-G3

<400> 6722

ggtcgaccgg ggatccgact ccactgccgc ctatctttaa ctacatgttg ccgtgctgtc 60

ctgttttgga aacttgtgtt gggttgttaa gccgtcgggtg ctttctttgt cgctgttgaa 120

ctgcatcatt agtacttcgt ggaacaagta tctcgcttaa tttgttctgt cctgcccggc 180

cctgtctttg ctcttgggtga tcggatcata aaaaaacaaa aaacatttct gaaaagacac 240

aattaaaaga tatatgccaa atgatactaa caactatcat ggtactatga actaaaaatt 300

aggaagagaa cggatcaaat gtcaattaat acatgatcaa agggggcccc ctaaaggttc 360

aaaccttatt ta 372

<210> 6723

<211> . 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-007-Q1-E1-G4  
  
 <400> 6723

cgggtcgacc ggatatccaa tgtataatTT cccttcgtgc ttaccgaagg atgattgcta 60  
 tgatgattgt tatgatcccg ttgattcttt tgaaatatcc ctttttgatg atgcttgcta 120  
 tgcttgTggc caagatgtca atatgaatta tgcttatgga gatgaacttg ctatagtTcc 180  
 ttatgttaaa catgaaattg ttgctattgc acccacgcat gatagtccta ttatctTTTT 240  
 gaattctccc gactacacta tattggagaa gtttgccctt attaaggatt atattgatgg 300  
 attgcgtttt actactacac atgatgattt tgatagatat aatatgcatg tgcttgctgc 360  
 tcctacttgc aattattatg agagaggaac tacatccccg cctctccatg tttcccaata 420  
 tgataa 426

<210> 6724  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-007-Q1-E1-G8  
  
 <400> 6724

gacggggTgc gcgatctggg cgcggtgct gcggaacggtt ggggtcaagg tcggcgggaa 60  
 ccctaacgtg tacgcgagcc tccttggggT tctgtggtct tccgtggcaa acaggtggca 120  
 cctggagatg ccagacatta tagatggctc gatttcgatc atgtcaagga tcggccttgg 180  
 gatcggaatg tttaacacgg gcctgttcat atgtctacag gacaagctcg tcgtgtgccg 240  
 gactggacat accgtgttgg gcatggccat gaggttcgtc tctgctccgg gatccaccgc 300  
 tgtcggagcg ctacttttgg gactgcgtgg tgaccttttg cgtgttgcca tcttacacgc 360  
 tgcactgcct cagtctgtcg gagcatttat cttcgcgcta gagtatgacc tgcacgctga 420

<210> 6725  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-G9

<400> 6725

ggtcaagaat taccggggccg actatcacaa tgaccgggggt cttgtcgcca atgatccgca 60  
tctccatact cagcgaaaat agccgaacga aggtgtagtg cagcggatga aggttaaaca 120  
tagcaaagat gtcatcaaac cgcaggacga tcgtaccccc gatgtcgcca tccacaaaagc 180  
ccttgccctc tggcaccttg gccacgaaaa cggggtatgc cacatccttc tctctgagac 240  
gccgcttctc caaagaaaga aactgtcgt gcagactcct cctcgagata tcctgcggtg 300  
aaggtggccc gtcttgagca cggatcgtag tcggtgccgg ctggctcgca cccttcttag 360  
tctttctttt gtgtgcctt 379

<210> 6726

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H1

<400> 6726

cgggtcgacg gggttgatgg agtcatactc gtcgtgattc aaatcaccgg agatcctagt 60  
gccgaacgga cggcacctcc gcgttcaaca cacgtgcagc ccggtgacgt ctcccatgcc 120  
ttgatccagc aaggggagag ggagagggtg gggaagactc cgtccagcag cagcacgacg 180  
gcgtgggtgt ggtggaggag cgtggcaatc ctgcagggct tcgccaagca ccgcgggaga 240  
ggaggaggga gagaggcagg gctatgcat ggagagggtc aaactcatgt gttggcagcc 300  
ccaaagtcct caagtatata taggggagag ggaagggggg gccccccctt tagggtttcc 360  
cacccaaggg gtgccgcagc cccaaaccca t 391

<210> 6727

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H11

<400> 6727

aatgaacagc gacagcaagc tccaaaacat gagctgggtc tgctacacac atgtgaacac 60

gctgccccag acaagcatga ccacgtagta gtcttataat aaaaacacta ccgagttcag 120  
 gtggggaacc ctctgcgagg atatcgaagt ctttacgcaa gtccatggat tagatcccaa 180  
 gcatagactt ctcttccttg aacaagtcaa tcagtggctt ggtgtgctag ggacacatat 240  
 agaatggagg tagcgagcct atcaaaccat accatacttc gcacatgcat gactgacttg 300  
 agatggttcc agaggaggca acattgactt tctcgaattc acgacggcaa cttgcatcaa 360  
 atgcaca 367

<210> 6728  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H12

<400> 6728  
 ccatcgtctc tggcgccacc gtctatggct acagaggaaa gagcattaag tctgcctca 60  
 tcggtggttc tagcctggca ttcacatctg ccattctgga cgttggcggt aacactacca 120  
 gagtggacaa tggcaaagcg taccatgcat acacaacgga aaagaagccc gaacctgcgc 180  
 attgatcaag gttgtctact tgtagcacia atcatgcaaa ccagctcggt gaatttttga 240  
 gctgatgtgt gctgttatgt ctgttttgct gatgcaccta gttcctttgc aaagctgtag 300  
 taacttgttt tgctcgaggg caatacaaca gacctg 336

<210> 6729  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H2

<400> 6729  
 ttccgttcaa aaaataactc tcccgaaggt ttcattctgt ttggactctg tttgatattc 60  
 cttttctttg aaacactgaa aaaggcaaga aaacaacaat ttgggctggg cctccggtta 120  
 ataggttagt cccaaaaata atataaaagt gtttaataaa gcccataaac atccaaaaca 180  
 gataatataa tagcatgaat acttcataaa ttatagatac gttggagatg tatcactttc 240  
 cttctgatta gattgctttt ccatctcttc tcaagtactt gtagcacaaa gacctgtttt 300

gaagcgttgt ttttctagtt ttgcttgcta gtaaccggct tgat

344

<210> 6730

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H3

<400> 6730

cgggtcgacc ggagacacaa tggagtacga acggttctgc aaaatgggcc tacggccttc 60  
tctcaaggac atctgctgga acggtccgtc agaggaaaag cttccatcag tatcggagtc 120  
agtacctcca actccgtcct ccaagtcgac caaaagaaat gtcatttaag tgtgatatct 180  
tccgagctgc aattacaatc tattctctc tctctttctt cctcctcaa agagctgaga 240  
ctttgctcac ttgagtatca agctttaggg ctctttgtta atcctttttg cagtttccct 300  
tttgtggtag caattgtagt atatggattt cctgttttgt tcaccaatag aagcacaaaa 360  
ggtgacagta ca 372

<210> 6731

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-007-Q1-E1-H4

<400> 6731

gactataaac ttacaagata ggatcaagaa ctcacatata ttcatgaaaa cataatagat 60  
tcagatctga tatcatggca ctcgggccct agtgacaagc attaagcata gcaaaattat 120  
agcaacatca atcttagaac ataatggata ctagggatca aaccctacca aaactaactc 180  
gattacatga taaatctcat ccaaccatc accgtccagc aagcctacga tggaattact 240  
cacacacggc ggcgagcatc atgaaattgt tgatggagga aggttgatga tgacgatggc 300  
gacggattcc cctctctgga gccccgaacg aactccagat cagccctctc aagagagatt 360  
tgggcttggc ggcggctccg tgtcgtnaaa catgatgaat ccttctctct gatTTTTTtc 420  
tccccgaacg tgaatatat 439

<210> 6732  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H7

<400> 6732

```
gtcgacgggt tgaggcaact ggcttgact atgatgcttg tatgacgtat ttacgtttta 60
gagttgtgtt gtgatatctt cccgtgagtc cctgatcttg atcgtaacacg tttgcgtgca 120
tgattagtgt acgattggat cgggggagtc acacaaacaa gatttcaagt gaccgaacaa 180
tagcacaagc aattaccata cgaactccac tttaactttg taacacaaac atatgcacaa 240
tatacaccca ttaacccgac agttcttgcg ccgacgcata agcaagacac aatacatact 300
cgtaaacgt gataccaaga gaacaagaaa ggtaaatcac ttaaaaatcg aatagttgtg 360
gtggtgtcac cttaaagaac aaacggacaa aaatgaaag 399
```

<210> 6733  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-007-Q1-E1-H8

<400> 6733

```
tcgacgggt cagttagatc ttctacagaa tatagtcctc atcagagatc ccgaggactc 60
caciaagtac tatccccgct ttaacctgga agatacttca agttttaggg acttgatga 120
acatagcaaa aatgtcctta gaagattata ccatgactat tatttcgttc gccaaagaaa 180
tctttggcga caaaatgcac tgaagactct acctgttcta ttgaactggt cggtatggt 240
ggcatgtggg gaagatcttg gccttatccc tgcttggtt caccctgtta tgctagaact 300
cgggttgatt ggattgcgta tccagagaat gcctagtga ccaggcttgg aatttgatat 360
tccgtccaag tacagctata tgacggtttg tgctccctca tgctatgatt gctc 414
```

<210> 6734  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A11

<400> 6734

gtccccgggcc gacgggggacc gcaaaatgga atgcctccaa gagccccgcg tactacaagc 60  
gcgggggacta tgtgcccgga ttgaacgttg atggtatgga ttttcttgca gtgaagcacg 120  
cttgtaaatt tgccaaagaa catgttcttg aaattggacc gattattctt gagatggaca 180  
catatagata ccatggacac tctatgtcag atccaggcag cacttaccgc actagagatg 240  
agattgcagg aataagacag gagcgtgatc cgattgagcg agtcagaaag ctattattga 300  
cccatgactt ggcaacagcc caggagctca aggacatgga gaaggaaatc aggaatgaag 360  
ttgacactgc aattgccaaa acaa 384

<210> 6735

<211> 126

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A2

<400> 6735

ctggtgtccg ctttgatgca gaaaccaaga tgggaatgga aacattttat gggtatatac 60  
aggacatatg ggaacttgac tattgacgtg gtttgacggt ccctttgttt cggtgcatat 120  
tggtgc 126

<210> 6736

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A3

<400> 6736

tttgacacgg gcaatggcca tccgcgagcc ttctatgaac gacgacctct tcatcgcat 60  
gatgcgcgac accgcaccaa ggaactgctg cactaagctg aaatagctgt tcggcttcgg 120  
cttttccggt cacagatgat ctacgacgaa cctcatggca agtccggaca atctattgag 180  
ttcggcccat tcggcaagct aatcagttag tggaagtgga tgctctggaa cgttaaactg 240  
cgaccagaat agcttgcca cttcacgacc tgtttgatct cggaagtatt cggccgcac 300  
gatagcactc gccgtcaa at ccggatatg 329



<210> 6737  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A5

<400> 6737

acaagctgaa aaggaagaca tcctaaggca gctgaaggag ctcgaagagg gaatgaccac 60  
 tgaagagaag aagcctgtac agatagtgga agcgagtggc aaggccaagt ccaaggaaga 120  
 tgatcttggt actgcaccct gatcttctgg aaatcttga cttgttgaca cttgctgtga 180  
 ttttatatgg ttgtaacgag aataatttct gatctgggta cgtgcacacg tttctgtgtg 240  
 cagtacagaa ctccctctat atacatatac agcttgagt taagaatata aacgcccaga 300  
 aaaataaaat aaccacataa accaaaaaaa aatgcgtcgg ct 342

<210> 6738  
 <211> 239  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A7

<400> 6738

ggcatcgatt tctagatggt tgggaggata agatatgcag cagcacagtt cttttgtacg 60  
 ctcttggtat ttcttcagtt ctttcgtctt cagattttct gctcaaaatc gccgggcgct 120  
 ctgcgcgctg ctagtgtgat atggtaatgt acatatgagt tttaacatga tatattgtgg 180  
 aactttttgt cgcaaaaaat aaaagcaaga tttcagattc aatgttcaat tctcaagat 239

<210> 6739  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A8

<400> 6739

gacgggaaag aagatcgtga ataatgagaa gattcaggtc tcaggtgaga togatgggga 60  
 agatggctcg ctacacaatt atatctggga atttagagtt gttagtttac cgtgctgctt 120

tcttttttgt gggtagatct aatgtctcta cgtataatag ataccgagtg tatgctgggtg 180  
gttcttttcca ttcttttgag gtcgtgggtg ccatgtaaat gtttgtggat tccttatgtt 240  
tttgccctcct gcggtaaata aaagctaata cagattcgtg gtcgaaaaaa aaacttaaaa 300  
attaaattca tagttaaaaa caataaaaaa aataacccaa atgaagaagt tcaacaaaaa 360  
aaaaaagcgg ccgccccaaa 380

<210> 6740  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-A9

<400> 6740

ctggaataca aaaagtgtcc acggagccga ctgcttagca agaggtggta cagcgggaag 60  
gtacctaacc agaggtggcg atgctgacag ttagcagtct gcctatgctg gtggaagctg 120  
cagtctaata cgacaagata tcagcacgcc gaccccgccg aaaggctaca tcacagcctt 180  
ctgatccgat cgagatgacc aattcactca ccggcgcaag ccttcaggag atgcatcagg 240  
atctaacgat tggcaaaccg ctcgccagaa cagatacggt tatatagttc ataacttcac 300  
tcgcacgcat gaaatggact gcacgaatag cacattccag tgagtgttga cgtcccatgg 360  
actgatatag cgggcagccg ggcaa 385

<210> 6741  
<211> 382  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-B10

<400> 6741

ttcccgggcc gacgagcacc tgatgtgcga catcgagggc caccacctcg cctccggggc 60  
catcctcggc cagcagggca ccgtctgggc ccagagcgcc gacttcccc agttcgggcc 120  
cgccgagatc actgcatca tgaaggactt cgacgagccg gggcacctcg cccccaccgg 180  
catgttcgtt gcaggtgcc agtacatggt catccagggt ggacctggcg ctgtcatccg 240  
tggcaagaag gcctgtaggg agcaggaggc atcaccatca agaagaccgg gcaggcgctg 300

gtggttggcg cctacgagga gcccatgacc cctgggcagt gcaacatggt ggtggagagg 360  
ctcggcgact acctcgttga ac 382

<210> 6742  
<211> 328  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-B2  
  
<400> 6742

gcttcacata taattgtag agcgcgggca tatcttttgt agaaagaatt aaactctctt 60  
gcttcagtta tatcttttta gagagataac aggaattggt caatcacatg gttagtcata 120  
aattcctaca taaacttgta gatcgttgaa tctgatatgt ttaatttctt gcaatagttt 180  
tacgatataa aggtggtgat attagagtca tgccagtggg tggttgtgga ttgtacagac 240  
acttgtgttg aggtttgcaa gtcccgtagc atgcacgtat ggtaaccgtt gtgtggcaaa 300  
ttgaagcatg ggggtgttcct tgaatgtc 328

<210> 6743  
<211> 365  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-B3  
  
<400> 6743

ggtcgacgcg tacaacacaa aaatatataa atagttcata ataatgacaa tgaaactata 60  
tttagttcat tgcaagaaca aggagacaat cctattataa tttattacat tgtaaaaaca 120  
tcttggaacca gtacgttggg atggcatggt gtgtaaacag ggaaaggat actaaggcga 180  
gaggcataga tgcgaccaac gagccggcca aaaaaaacca ttgccaaccg tgcacgcgaa 240  
gagcagtgat ttaattgatg taccaacaat cactcagata gaaatggaac atacacacac 300  
aaatagatgt gaaacatgcg tcaccncaa aagtgccacc gaaatgaaaa aaagagcctt 360  
gaaaa 365

<210> 6744

<211> 344  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-B5  
  
 <400> 6744  
  
 gacgggtaca tcaagcacca taacgacgcc ggcgtgggca tgaccgacta cggcctcgac 60  
 agggggcggcg gccccgggct ctgagtgagt gaggctttgt gttgctttgc ttgttgtgaa 120  
 ctgggctggg aggttgctgt atcttgtgtg tgccgaagc tttatgcttc caggatgtga 180  
 tgggtccgagc gatgcggaaa cggctactgta actgcatcat atgtttatgg tgtcgatcgc 240  
 cttgggtgat atcatcttcg ggggtgtactc tataaacaat ggtgcttgag ctgtcatggc 300  
 aaaagtaaaa cattgcgggtg taatgctgca tttcaaagc gggc 344

<210> 6745  
 <211> 274  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-B6  
  
 <400> 6745  
  
 gacgggaacc gcgagagccc gtgccccagc actgctgccc cttagtctcc ggatcatcgt 60  
 catctccgcc tgtgcgccgt cgccgcgggt ctctgccgt gtccacaaga ttcctcttcg 120  
 ccattgtcgc accatgatat gctactgttg atactgaac ctgagagcga aactgtgctg 180  
 tgaatcctgt gaaaaaactt acataaagac cagtatagtt atgtgttggtg aagttttcaa 240  
 gttatgggta gtccttttaa ggactatgga ataa 274

<210> 6746  
 <211> 213  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-B9  
  
 <400> 6746  
  
 acgggaaatg gaagatagta tcgacatatg ttattctaca aaattactct atagatgcaa 60  
 cagctctaag taaactgcgt ataaatcatg tatgtagaaa gtacgtgtaa cagttgttag 120

aagttgagtc cttgtgtgat ggtgcggatg taacacagca tgtgattcta atcatccaca 180  
 tgcctcatca atcagtctgt acggataacc cac 213

<210> 6747  
 <211> 315  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-C1  
 <400> 6747

gggtcgaggc gaaaatatag tccatgcatt ggaagattta ctggctcaag cagaagttgc 60  
 tctatgcttc tgctgtgtca agcattagct tagttgcagc cttgctggaa ggatggattc 120  
 aggtgtgcaa gattgatgat gtacctgcaa acggcttcgt taatttttagg aaggatggag 180  
 tcgtgcatgg actggatcct aaccgactga catgaaaact tgaggctatt acacggattc 240  
 agctttgaaa cacggctttg aagtccgagg cgtgccttat gattttttgt gggctgggac 300  
 gataggttgt actgt 315

<210> 6748  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-C11  
 <400> 6748

tcccgggcag acggggaaca caggaagaag gacggggagc acaagaagga cggcgagcac 60  
 aagaaggacg gggagcacia ggagggcatg atggagaaga tcaaggacia gatcagcggc 120  
 gacggccacg gcgacggcaa gaaggacggc gagcacaagg agaagaagga caagaagaag 180  
 aagaaggaca agaagcacgg cgagggccac aaggacgacg acggccacgg cagcagcagc 240  
 agcgacagcg acagcgactg agccagctcc ggccgcgtgc agtgcagggg agatgaacgc 300  
 gtgggttaat ttggagcgtg tggtagcata tgtatgtaat gcttgacatg tctcatggat 360  
 cntgtaatgt aat 373

<210> 6749  
 <211> 271

<212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-C2  
  
 <400> 6749  
  
 gggtcgagcg cgaagctcca acggaggcag ccctgcttcc aagaatcaca aggtcactct 60  
 gtccgggctg ctcaacatgg tggacggcct ctggtccagc agcggccatg agcggatcct 120  
 catcttcacc accaaccaca gggaccggct cgacccggcg ctgctccggc ctggccggat 180  
 ggacatgcac gtccacatgg gctactgtgg ctctgctgcc ttcagggagc tcgcgggcaa 240  
 ctaccacggc atccanngac acccgctctt c 271

<210> 6750  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-C4  
  
 <400> 6750  
  
 atctcacacc ttctaagatc aaaccagcca ctacagatg atcactgtca gtattttctc 60  
 taccaagtgc tccgaggatt gaagtatgtg cattcagcac aggtcttgca ccgggacctc 120  
 aggccgagca acctgctgct caatgccaaag tgtgaactca agattggaga ttttggttg 180  
 gctaggacca ccaactgagac tgacttcatg atggagtatg ttgttactcg gtggtacagg 240  
 gcaccggaac tcctgtctaa ctgccccgag tacactgcag caattgatat ccggtcagtg 300  
 gggtgcatcc tcggtgagat tgctacgagg gaaccactgt ttcttggaag agattaagtt 360  
 caac 364

<210> 6751  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-D1  
  
 <400> 6751  
  
 atctgacgag gcaatggaga gcgtcgagaa ccctggctgg tgcattgcca aagccgtggg 60

gtacctgatt ctcggtgcta ccatttgtgc cgcatttgca gacccgctcg ttgatgctgt 120  
ccacaacttc tctaacgcca cacacatccc gtccttcttt gtctcgttca tcggcctccc 180  
gctggcaacc aattccagcg aggctgtctc ggccatcatc ttcgccagca ggaagaagca 240  
gaggacttgc tcccttactt tctcggaggt gtacggcggt gtgaccatga ncaacacacg 300  
gtgcctgggc gtgtccttag cgtca 326

<210> 6752  
<211> 142  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-D2

<400> 6752

acgacgtgat gtcgcacgta aagatctcgg tctggattat cgaggaagtc atctcatgtt 60  
cggataccta tagtgacctac ttccacacag acgccattca tctacttcca cgctcactca 120  
tcttgacgca tccttcaggt tc 142

<210> 6753  
<211> 72  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-D3

<400> 6753

ttagaaattg taaatatgca ttgttgatc ggcacctgaa tgaatgaaat aaacgaaata 60  
acgctcttgt tc 72

<210> 6754  
<211> 296  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-D4

<400> 6754

agcaciaaaga gaagaaggac aagaagaagg acggggagca caagaaggac ggcgagcaca 60

agaaggacgg ggagcacaag gagggcatga tggagaagat caaggacaag atcagcggcg 120  
acggccacgg cgacggcaag aaggacggcg agcacaagga gaagaaggac aagaagaaga 180  
agaaggacaa gaagcacggc gagggccaca aggacgacga cggccacngc agcagcagca 240  
gcgacagcga cagcaactga accagctccc gccgcgtgca gtgcaaggga gatgaa 296

<210> 6755  
<211> 317  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-D7  
<400> 6755

ccgggtcgac gggggcctac agctgaacat cctcatgaca attcaacata cccctgccct 60  
ttcggaaagg gaaggtttcc cactcatgga cacctagctg aatgcctgaa cctgaacctc 120  
gtttttcttc ttcttcttct tcttcttctc cttggtaatt ccttgttgat tccttctggg 180  
catgctatat tattgggtgc aacaacaaat tattgtcctt gttttgattt ccttcctgtc 240  
aagttcatcc tttagtgcta gtactagtgg tacatcagtt tgatttagga aaaacacaag 300  
cctctgctta acattaa 317

<210> 6756  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-D9  
<400> 6756

aattcccggg ccgacgggac tgccagctcc ctctctcccg cggctgggtc tgctgccgog 60  
caggcctcac cgccccaccg tactcccatc gctggcctag ccatccctct actcaccac 120  
acctgctgtt attctccggc gacggcagac gaaccagtaa accctcgtac agtcgtactc 180  
ccctccacgt gggaaacaac tgcagagtct tccctgcctc cgtgtcgttc ctttcctagg 240  
cctcaccgtc gtccaccgcc ctgggtgctct cggcgcgggc ttatcaacat ggtcaacgac 300  
tgacatgcat ctgaagtgga ctgtacgtgg agaggccgac agctgggtcc acgaccgcac 360  
gcaaggaaat gcctccttaa taagccgcaa aatatgaatc tctcaacctg acatcaggga 420



cccaccg

427

<210> 6757  
<211> 155  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-E1  
  
<400> 6757

actccctata gtacgtcgta ttaagcctcg tcncagtggg gtacttggtc ctgctgatgt 60  
agacttctgt gactcgctcg ggtgcgaggc tggagggcgt ctgcagctcc agcaccgtgg 120  
gggtgtgccca aggtgccgga gtttacttgg ggggt 155

<210> 6758  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-E10  
  
<400> 6758

gtactagtct agaatgcccg ggccgacggg gatgatattg atatggcagt ttcattgcttc 60  
cccgaaatgc tggaagaag aagtggcaat caggttggtg gcgctcttga ggtgcttgtg 120  
tatgggctgt gcaggaagaa agaagcaaag gaagcgttca aagttctgaa ggacctgggtg 180  
ttggaaaagg atgtgggtcc ttggcaaagt acctacaagt atttgatcca caagttgatc 240  
cgccaagggc atcttaaaga agcatttgat gtgctaggtt taatgaaaag taatggattt 300  
ccgccttata tcaatccatt tatcacacac attttgaaat ctggtactgt ggacgatgcc 360  
ctgggtctgc taaacgcaat gtcttcagag gagttcccat caagaac 407

<210> 6759  
<211> 279  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-E2  
  
<400> 6759

ggtcgacggg taccttgaag tgtcttttgt tttctttcgc taacggagct cacgagtttc 60  
ctatcttgag ttttgtgttg tgaagttttc tagttttggg tgaattcttt tgatagatca 120  
tgggtacaagg agtggcaaga gcctatagct tcggattcnc atggcgcccc caagataatc 180  
caaggacacc aaaaattctt gtattatttg gggatgcnc gaaattatcn cctctttttc 240  
gtcaacttcc atcggttaatt tactttggag ctataattt 279

<210> 6760  
<211> 273  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-E3  
<400> 6760

catcctcatt ttataaaaaa aaaaatctct cgttcatggt tcatgaccac gaaccatgca 60  
agtacagggg tgtggataag ctctcggtttt cgctccgctt gaagttggac gtgaaagaca 120  
cccgatgaga tagcctcatg tgccggcgag taccacgcac gttgggtgga gttgcataaa 180  
agaaaggcaa tgtgctaaag gtcttctcta ttttttttaa tactggcctt cttctgtttt 240  
tacattcttc cctagtttga taatgcttct ttt 273

<210> 6761  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-E4  
<400> 6761

cgggtcgacg cggataagga tcaatcggtg ttgcaagcat gtgatattcg tccactccct 60  
ttgactgttc atcgcccccac ctgaaagaa gcgaaacgcy tatacaataa cctaacacag 120  
ctctattatg agacggaatg ttctattatg ggtgaagtct tacccttgt ggaaaatgtg 180  
acaaagtttg agcaaagtac agaagcaagg gaagagaaca gtgtggcccc tgaggaacct 240  
attttggact catcagattc gcatgaagca atggccatac catctaataa tgcaacaaca 300  
actctccatg aagctgcaaa agctggcaat gttgaacaaa ctatggaatt gctccagcaa 360  
ggtttggatt cntgtatcaa agatgaaaga agaaagacac cttacctgct ggcttccgac 420

aaagaagtag aaatac

436

<210> 6762  
<211> 315  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-E5  
  
<400> 6762

ccgggtcgac ggggacgcca atgaccaggc catccagtgg ctggacggca accagcttgc 60  
tgaggcagat gagtttgacg acaagatgaa ggagctggag ggcctctgca accccataat 120  
cgccaagatg taccaggggtg cgggagctaa catggcgggt ggcattggacg aagacgatgc 180  
acctccggct gctggcggcg ctggcccca gatcgaggag gtcgactaag cgagcacttg 240  
taccagtctt accctaaagt tattccgttc gttatgttgg atgctactgc agtacgtggt 300  
gttggatgtg atgtg 315

<210> 6763  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-E7  
  
<400> 6763

cgggtcgacg ccgaatggaa agtgtgcaga ggatgcaagg atggacgccc ggggtgcgtc 60  
ttcgtcgaag cgacgtaatg ctggcagtgg tctgttcacg atcgccaaac gtatgagaaa 120  
ataattggct tactcgtagt gtatcatgcc tgtctgtcat tatagcatgt tccgttcaag 180  
tttatgtgta gctcacgttt cgacattttg cttggcaacc ctgtagtgca tcacttgcta 240  
ctgcttttct atagatctgt tcgctgcaa aaaacaaaaa tacaacaga aataaaaaaa 300  
caaaaaaaaa aaaaaaaaaa taaaaaatc caaaaaaaaa acaaaaaaaaa aataaaggaa 360  
aaaaaaaaagg accacgtcaa gaaaaa 386

<210> 6764  
<211> 337  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-E8

<400> 6764

cgggtcgacg ggggtactgaa agacaagaag aagccgatca tcttctcgat ggctagggttg 60  
gaccgtgtca agaatatgac tggcctggta gaaatgtatg ggcggaatcc tcgcctacag 120  
gagctggtaa acctagtggg tgtctgtggg gaccatggaa aggtgtccaa ggactacgag 180  
gagcaggcag agttcaagaa gatgtttgat cttattgaac agtacaacct gattggacac 240  
atccgctgga tctccgctca gatgaatcgt gttcgcaatg gtgagctcta acgctacatc 300  
tgccaaaatg aaggaacctt tgttcaacct gccttcc 337

<210> 6765

<211> 320

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-F1

<400> 6765

gggtcgacgg gcctaaacac tgggtcaaag gtttctttca agaatcatga gagaacattc 60  
aaggagtgga ttatttgga attagaacct tcagatttct tagaacttca cttggattta 120  
tgtgaatata agcgtaaagag gtctagtggc aatgctacaa aatcactgca ggcgatataa 180  
taacgttgta gatagacgga gactgaatca gttgacacta ctttgatgtc tatcgagcca 240  
atgggacaac atagaataga agaaccggaa gcaggttatc tatcttcacg agcaagttgg 300  
cgtctgtaaa ctttcaccgg 320

<210> 6766

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-F10

<400> 6766

gacggggaac ctatgggtct gcacaattac ttttcaggtt ctttattttt attttatata 60  
ttattttttac catttcaaaa aagaaatgta aggacgaaat agaactgcca taaacttta 120  
gaaattgtta gtgtatttca aaaatgttca acatgttttt ggaaaatgtt tcacatgtgt 180

taaaaaatta taacgtgttt ttgaaaaatg tttgtcttgc gcaaaaaaat tttacaccag 240  
gtatttttaa acaagttcaa cgtgtgtgaa aaagttcttt tgtaaattac cctttcactt 300  
atacaaacat gggtgtcatt tttaatccta aattttacac attaatttca aatataggcg 360  
aaaatattta 370

<210> 6767  
<211> 308  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-F2  
<400> 6767

atctcgaagc atctcgggct cctcgcagaa caccttcccc gacatcgatt tcaccgagga 60  
gggcgggata tccggcgccg ggcctagcag cccaagtcg ctccgggtgcc ttgcagagcc 120  
gaaagtggtc aggaagatga ggggtggctgc cgagaagact ccgattcagc acgtccttca 180  
gccgccgaac atcgctcctt tgctcgccat catcatcggc atgggtccccg tgctcaaggc 240  
cttcgtgttt ggggctgatg cgccgctctc cctctttcac gacagtttgg agaattctcc 300  
tgctgctg 308

<210> 6768  
<211> 297  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-F3  
<400> 6768

ggtcgacgcg gaggacgacg tgggtgctgcc ggtgaacaag tgaagccgac gtatccatca 60  
gcccattctca cgttcggggt cgtgtaatgc atgcatgcat gcacaaataa ttcgttcacg 120  
ttcagggtct atgatctgga ctagtatttc acgtcggtgt ttcgaaatat cccaatgatt 180  
agtaaactcc actacatcta cattctatta ccttttaatt gcgcgattat agcccaaagt 240  
atgtttccac gagcacatat gatgctaatt attcataaat acaatcctat ttgcatg 297

<210> 6769  
<211> 253

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-F7  
 <400> 6769  
 gacgggggat ataacgaaca caatcggttcg ctagcttcta ccgttctata accaactact 60  
 cttgctccaa tctggatatct gtctctatcc ggttccgtaa gactgctgga taccagatcc 120  
 cccactccca gcgagtatcc tgggtctcatc tcacattcat ctcgcctaag ccgtcttctc 180  
 tccatccact actgacgatt actgcgggac agcgtggcag caactcattc gatgtcgtcc 240  
 ggcgctcatc ctc 253

<210> 6770  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-G1  
 <400> 6770  
 ggtcaaaaat atccgggtcg acgggggttct taagaactta atactctaga tgcattgctgg 60  
 atagcgggttg atgtgtggag taatagtagt agatgcagaa tcgtttcggg ttacttgtcg 120  
 tagacacgat gcctatatac aagatcatgc ctagatattc tcataattat gcacttctct 180  
 atcaattgct caacagtaat ttgttcaccc accataatac ttatgctatc ttgagagaag 240  
 tcactagtga aacctatggc cccgggggtct aatctccatt atattaatct cccgtcaaca 300  
 agctatttat gtcgccgttt attttgcaat ctttactttc aatctatatc attaaaatac 360  
 aaaaataatt aacc 374

<210> 6771  
 <211> 298  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-008-Q1-E1-G12  
 <400> 6771  
 cgcattctcat ctaattcctg gatattgttg cgtctatggc gttctccatg gaatcacgag 60  
 tcgtaagcag caagtaggaa tctatcatca aagggtctta cagagactga ttttaccaca 120

ggtgtataga cggttattagt cagtggacag ggtctactaa gtggtattgg atcatgcttg 180  
cataggtatc acattactct caacatagac agcatatgta ttgatactaa aatgcacagg 240  
aacagtacgt gttaccttaa ccttgctgct gttattgaaa tattggatgt agtaaaga 298

<210> 6772  
<211> 331  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-G2  
<400> 6772

cgacatagct caagttcacc ggcacgccc actacctcgg attcaaggct taaacgcgca 60  
tgcatatgca tgcacgcaac gcctgcccc tgtacatgag ataccgatcg aggtanacgt 120  
aatgtgtgta cggaacgtgt gatgactgat gcttgcaaga tcagcanacc ttcgctgctc 180  
cggtatcacc ttctgttctt ttctggagtt ctcttttccc tggtaaata ttaagtgtat 240  
gttggtgagtt gtgacattga ttaactggaa aatgtatcaa tcagatccca ataaactgcg 300  
tcggctttgc aaaaaaaaaa cttccaaggg a 331

<210> 6773  
<211> 324  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-008-Q1-E1-G3  
<400> 6773

gggtcgacgg gcctacctat tatggcattt ccatagtcac tccgagatat attgtcatgc 60  
aactttccac cggtccgtta ttatgacacg cttcatcatt gtcacattgc ttgcatgac 120  
atgtagttga catcgatatt gtggcaaagc caccgttcac aattcttcac acatgtcact 180  
catgcatcat tgcacatccc ggtacaccgc cggaggcatt cacatagagt catattctaa 240  
gtattgagtt gtaagtaaat taaagtgtga tgatcatcat tattagagca ttgttccagt 300  
gaggaaagga tgatggggac tatg 324

<210> 6774

<211> 351  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-G5

<400> 6774

tacagtctag aattccccggg ccgacgggga tccggcagac ggaggcgaac gaggaggcga 60  
agctgagctc gttccagcag gagatcgtgc agctggcggc ggtgctgaac ggcgaccacc 120  
agctaagcag cctgcaggag aggatcaggg agaggatgaa cgtgagggaa ggcacctcct 180  
acatgaggag cgccgtgcgg cgcttcttcg aggcgggcat gtcggccaag aggatgggccc 240  
tcgccgacga cgagcagatc gtcaagatga ggccctccct taccaccaga atgacctcct 300  
cccctgcaga tcaagatgat agtccgtana gagcancgat gcatacatat a 351

<210> 6775  
<211> 338  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-G6

<400> 6775

ccgggtcgac gggaacatct aaattgtagc aatccaacct caaacggtcg aatctctgtg 60  
cttaagtgtc atccctggat cggtaatgct gacacacaca gtacttgaag gatttataac 120  
aaagtagcaa tcacacactt attacatcaa atgtctcaaa cgagaactta ttacaataaa 180  
tatggcttaa gggcatctaa ataagataac agcggaaggc ttggaagata aagtgagtcc 240  
atcaactcca acgccatagc tgagtgcacg acaaacgacc tagcgcaacc tactcttcgt 300  
ctgaaaagtc tgcaacatga catgttggtta cccgaaaa 338

<210> 6776  
<211> 275  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-G8

<400> 6776

ccgggccgac ggggtccgtc aagaatggcg ggcctatgac cgagaccagc agatgaattc 60



cagccggtcg atgccttaca ttgttcgtga tcggaattca gaggaggact ctggtgctga 120  
 gttgctgctg attacaattc agaagaggac actggttgcta gctggtggca tcacagagcc 180  
 acaggcgtgc ctgcactgta tatcgatcatc ggctaggaat aggatggccg ggaaaatatc 240  
 tggtgatacc ggagctaaaa tgctcccatg atacg 275

<210> 6777  
 <211> 265  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-H1

<400> 6777

gggtcgacgc gcaatggaag atgtangtgt gatatgtcaa gtagtggaca gataagccaa 60  
 ccactggatg tggttttgag ggatttttgc agtgggggtt gtaggggtgct atgccgcgct 120  
 gggttttggga tttgaaataa aacgaaggga gatgtgccac gctcttaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaagc ggccg 265

<210> 6778  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-008-Q1-E1-H10

<400> 6778

gacgggtata ttacgcgacg tggaggtagt cgttgttggt gttgtaggag aggtgcgtta 60  
 ggtgcagcgg gtggtggtgg tggaagacgc gcgagcaatt cattaaatct gttatcgagc 120  
 tttgtttcga acgtcttctc aaggccagtg atcttctcca tggcctcttc aaaattgttc 180  
 agcacatctt gcacctgttc agtcatcatt tgctgaaact tatcatgaag ctccctgttc 240  
 gataaattct ccagtcfaat ctgctcggct tgtgatcctg gcatgggttag cagcaataga 300  
 aacacacaag aatatgattc tacagactac gaacaagtgg tgggtggtggg tgtgatgagg 360  
 acatgact 368

<210> 6779  
 <211> 315  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-H12  
  
 <400> 6779  
  
 gctaatacata gaaaacgcac caaagagaaa cacatatcat gtggtgaata aaaatataac 60  
 ctcaagtaca gttaccgatg gacgaagacg aacgagggga tgcctcccgg ggcataacca 120  
 agcttaggct tttcgatgct ctttaatttt accttggggg gccttgggca tctccaagct 180  
 taggctcttg ccattcctta ttccataatc catcaaactt ttacccaaaa cttgaaaact 240  
 tcacaacaca aaactcaaca gaaaatctca tgagctccat taatataaga aaacaagcca 300  
 ccacttaagg tactg 315

<210> 6780  
 <211> 55  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-008-Q1-E1-H2  
  
 <400> 6780  
  
 gggtcgacgg cgaggagaat gatgaatggg ctgatatgcc gctttgtctc aacca 55

<210> 6781  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-008-Q1-E1-H3  
  
 <400> 6781  
  
 gggtcgacgg gtccgccaac ggccagccga atcgacggag aaggaatggc ttcaaccagg 60  
 ggagacgtac gatgggagtt cggccaatgc gaactgatac ggaggatagt gtacggcgaa 120  
 ctgtctatgt ctcagacatt gatcaacatg tcaactgaaca gaagcttgct gaggttttct 180  
 caaactgtgg tcaagtggta cattgccgta tctgtgggta ttcaaactca gtgatgcgtt 240  
 tttgctttta tcgagttcgc cgatgatgct ngtgcaagag cagctctaac gcttggtgga 300

acaattcttg gttt

314

<210> 6782  
<211> 295  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-H4  
  
<400> 6782

cgaggagtgcg gagggccggcc gggagtcacg tggcattcaa ggtcttgaag gtagattccg 60  
cgtctgcacc cggtttgctg gctcaacgcg cgcgcgaccg gcttccgccc tgacagccac 120  
catgtgcgcc tcctccgcac gggcggagac gacaatgaca cgctagtcc tcctcgccag 180  
cgtgttgagg caccgcctca tcctcctctt cgtacgctgc gtgcatagac gcggctccac 240  
cagctgctcg cgtgcttggc agcgcggcgg catcgcgagg agggactgca gatga 295

<210> 6783  
<211> 287  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-008-Q1-E1-H6  
  
<400> 6783

tcgacgggga tgaatacaaa tatagaaaaa aagttctgta ataatgttgg aacaatgaaa 60  
gtatttaatg attgtcttcc ttatgaatgg tggactgaga cgaacgatgg tcttttccta 120  
aaaatctatc cccctagggg gtatgcgcgt actactttgt ttcaatgact aggagatttt 180  
tggagttaag tatgtcagtt ctttatcact aatgtttagt ccacggatta tacgcactca 240  
cactcttcca tcagtgcctat tctttcaagt tccgggcaag gtaaaac 287

<210> 6784  
<211> 311  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-008-Q1-E1-H7  
  
<400> 6784

cgaatcgacg gagaatgaat ggcttcaacc aggggagacg tangatggga gttcggccaa 60  
 tgcgaactga tacggaggat agtgtacggc gaactgtcta tgtctcagac attgatcaac 120  
 atgtcactga acagaagctt gctgaggttt tctcaaactg tggtaagtgt gtagattgcc 180  
 gtatctgtgg tgatccacac tcagtgatgc gtttttgctt ttatcgagtt cgccgatgat 240  
 gtcggtgcac gagcagctct aacgcttggg tgaaaccatt catggggttt taccctgtca 300  
 aaatttctgc c 311

<210> 6785  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-A1

<400> 6785  
 gtaccggtca accattcacg ggccgacggg ctaccagaga gttagttacc catgggccgc 60  
 aacatggcgc ttcccctgct cctggcgctg gcggccctag tggcgctcgt gccgtcgggt 120  
 tccgtcgcga cggcggggac ggctggtgcg ttcgacagct ggttgtcggc gaaccagaaa 180  
 gaattcgcga tcaaccaggc gttgtacgcy aagaaggcgg tgggtgacac cggcagcacc 240  
 atcgacgagt ccctgtccaa ggcygaggat aacaagacca cctacgtggt ggacccaag 300  
 ggcggtggtg actacaagac catcacggcc gcgatcgacg ccatcccga gggcaacacc 360  
 ggtcgcgtaa tcctggacct gaaacccggc gaggaccgtg agaagatctt cctcaaactc 420  
 agcaagccc 429

<210> 6786  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-A2

<400> 6786  
 gaggggaggt aagcgagctg cgtccgccac gccgccaaact cgctctccgg cggctcgtc 60  
 gteccggcgt ccttggccac tcccttgctt ctgctggtct tgggtgccat ggcggctcgc 120  
 ggcagcaagg gacagaagac atcgaagaca cagcggcggt gagcaaaggc gaagacttac 180

gaaggaagga gaatgggatg gcggttccga gattggggaa ggcacggagg gtaaatagagc 240  
agcgtgcccg cggttattcc tctttacggg gaaggcgcg ggcgcctctt ttcccattaa 300  
ctgcgacatg acgcatgcgt gtgagaaccg cccacgcgat gacccccaca tcatgctcaa 360  
ccctccacgt cgcgcgttca acgcggtt 388

<210> 6787  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-A3  
<400> 6787

aaccatattt taatctctca taataattac atgtaggacc ataataaaat tcaacaatgt 60  
agccatcata taaaatcttc tcttcatgat ccacatgcat aaaagtttta taatcttcca 120  
aaatagtggg attaacatca aaccacttt cataaaaagt ttcataagat tgaacactct 180  
ccaaatatgt gggattactt ttacctaaag ttgacgctct tccaacccca ctttcaatat 240  
taatgcaaac attattatca atagcatatt catcatgagg cataaacaat ttttcaagat 300  
cataagaaac gtgatcactt caatcatgat cattgcaata agtagtggac atatcaaaat 360  
tagcatcccc aagcttgggg ttttgc 386

<210> 6788  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-A7  
<400> 6788

gtccccggcc gacatgggag acatgctgat gatggacagg ttccgtcaat ggcaggccac 60  
gcacaaccgg tcgtacctga gcgcggagga gaggtgcgt cgcttcggg tgtaccgcga 120  
caacgtggag tacatcgacg ccaccaaccg gcgcggcgac ctacacctag agctcggcga 180  
gaatgagttc gccgacctca ccaggagga gttcctagcc aggtacgcgt cgtcctacga 240  
tggggtcggt gatgatactg gcatcacgtt gcctgtgggc ggtggcgacg ccgagctgtg 300  
gtcgtccggc ggcgacaatg atagctcctt ggaggctccg cctcccagct gggactggag 360

atccaagggc gccgtcacac cgggtcaag

388

<210> 6789

<211> 385

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-B1

<400> 6789

gggtcgaggg ggaccacaag gagaagaagg acaagaagaa gaagaaggac aagaagcacg 60  
gcgagggcca caaggacgac gaccaccaca acaccatcat cgcattccat tagcattcta 120  
ccattttcct cggagagaag tagccagaaa cagcagcgcc atggccggca tcatgcacaa 180  
gatcgaggag aagctccaca tgggtggcgg cagcagcgag cacaagaagg acgaggagca 240  
caagaaggcg gaggagcaca agaagaagga cggggagcac aagaaggacg gcgagcacia 300  
ggagggcatg atggagaaga tcaaggacaa gatcagcgcc gacggccacg gcgacggcaa 360  
gaaggacggc gaccacaaag agaag 385

<210> 6790

<211> 418

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-009-Q1-E1-B10

<400> 6790

ggtcgacggc gaaggtgaag gaaacagcgg agtcagccat ggggaggggg aggggtggagc 60  
tgaagcggat cgagaacaag atcaaccgcc aggtcacctt cgccaagcgc atgaacggcc 120  
tgctcaagaa ggcctacgag ctctccgtgc tgtgcgacgc cgaggtcgcg ctcatcgtct 180  
tctccaaccg cggcaagctc tacgagttct gcagcaccca gagcatgacg aagacactcg 240  
acaagtatca aaaatgcagt tatgcaggac ctgaaactac tgtgcagaac cgagaaaatg 300  
agcaactgaa aaacagccgc aatgagtacc tgaaactaaa ggcacggggt gataatttac 360  
agcgaacaca aaggaatttg cttggtgaag atcttgattc attangcata aaagagct 418

<210> 6791

<211> 300

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-B11  
 <400> 6791

cggatctgca cagaggactc tgatggttgg tatagaaaat tttctgactg gggatcaagg 60  
 ataatgttgc tactggagca gtttgtacaa tttttgacct tctttactga acattcgggg 120  
 ataggggatgc caccctggat gcatctctag atctgtggat gtatgtgtgt aatcatcact 180  
 gtatttaggg tttgaggcgc taatttagat gttcgttacc ttgatgttcg atggagaaca 240  
 aattactatt tctgaaatgg cggtaatac acagagccct tcagtgttaa caaagaatac 300

<210> 6792  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-B2  
 <400> 6792

cgggtcgacg cgggccacca caaggggacc tggtaccat tactactgca gttcccgcgt 60  
 gggttgaaga tgtccaaggc ggttaccaag aagatgcaga agctcaacgc ctactgacca 120  
 aactcaccac ttcgccggag ggttttgatg ggtttgtgct ccaggacggc atcatccgcc 180  
 acaggggacg agtgtggctg ggagcaaagt tggctttgca aagacaggtc cttgaagcgt 240  
 tgcacacagg cgctatcggg gggcactctg gtttcaatgc cacgtaccgg cgtgtgacgac 300  
 atctcttcac ttggccgagc ctgaaacatc acgtgaagtt attcctcgaa gcgcgccaga 360  
 cttgcaagca agccaagcca gaaaggattc gttaccggg attga 405

<210> 6793  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-B3  
 <400> 6793

gggtcgacgg gtgagcctac aagatctatc ttattattac ggcactcggt aaatctatct 60  
 tcgcttttta tgcttagcta ggggcgttaa acgatagtgc tagttgggag gcaacccaaa 120

ttttctttat gtttctagtt tttttctcc tgtttaggaa taaatcttgc atctactctc 180  
 tatttagatg tgtttttatt ttttaattag tgtttggtcc aagtagaacc tataggataa 240  
 cctacgatga tagttgattt gattctgctg aaaaatagaa actttgcgcg cacgaatata 300  
 attttgtaa atcacaggaa cgtgcttttg agttgattct ttttctgct gttcaataga 360  
 caaattgtcc atgacttcct attttggtag aagttttaga g 401

<210> 6794  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-B4  
 <400> 6794

ccgggtcgac gcgaagtgc aggaaaatag ctcaacagca tagccaaaaa tatataatac 60  
 tcctatacat gcatatatc atagtgtgat ataactacat gcataggaaa caataggtaa 120  
 aggatgatca acatgtaact tgccttggtt ctggttcata aagtcacact cctgacaata 180  
 gctcgcgtcg tactccggaa aatctacacg tttcacacaa ttcaacaaat caatcaccca 240  
 aacacgaata gaacccaaac aaaaccaaca gcaagaaaac cattttttaa actcaacaac 300  
 agaatcttaa cagcacctaa attgctctat ggtcacaatg caaaaggaa cactaaattt 360  
 cgttaaacgg ttgggaagtt acggcctcgg aagatttgat taaaatccga ac 412

<210> 6795  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-B7  
 <400> 6795

cccgggtcga cggggaattt gaatttaatt caaaatttac tgacaagatg aggagaatta 60  
 agatacctct gcctccagtt gatgagaaaa agaaggtagt tgaagatgtt gacaaggatc 120  
 gaagatacgc aattgatgca tccattgttc gtattatgaa gagccggaaa gtcttggttc 180  
 accagacact agtaatggag tgtgtggagc aacttggtcg catgttcaag cccgacttca 240  
 aagcaataaa gaagcgcatt gaggatctta taaccagga ttacctgtag agggacaagg 300



agaaccagaa cgtctaccga tacttggtt gatcatctgt tctccatgct gggttcggta 360  
acagtatgac taccaagcta ctgctattta aggatgctat attttgtgcc aaggcacaac 420  
gc 422

<210> 6796  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-009-Q1-E1-B9  
  
<400> 6796

gtcgacgggc aaggcggagc agggatggcc ggcggtcgat gaagatggcc gggaccagac 60  
ggatctgact ggagatggtg gccggcaggc tggagctcct tgcagcttcc atggcatact 120  
cttgcaaga atagagaggg cgggagatac tagagtgaga aagaaaagag gaaccaaggg 180  
aggaagggga caggaagaga agggaggcga ggccggcctg ggggagctgg tcgccggcac 240  
gacgtccggt tgagggagag gcggcgggat cgacgcgcgg gcgcagaagc tcatgtgcgt 300  
gctcgcacac gagcgtgagg ctctttcctc ggttggttcc tagaggcagc gcaaggacga 360  
ggtangggat tgcgcgaggg acttggcggc ggggctgggc tgaaactgct gct 413

<210> 6797  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-009-Q1-E1-C10  
  
<400> 6797

attcacgggt cgacggctac ttgaaatctc atttatggta gtgtgcatta atttgtaaga 60  
tttaacttgc aaatcatgac attgctcgca accttttgga atgtatttgg atatcactga 120  
atatcaatta tttcttcata aattaattat ttaaattcaa gacttgcttg cgctatagga 180  
tcccttcaac atggtacaag ttgcatgata cctcgtgata tcattgttta tcagttcatt 240  
tcctgttaat tagttaaata tcttagttat cgctctacct taacagtacg ctgctacagc 300  
ctacaaattg tgataatctg tttgttcac ataatacact tacacttctg aatcatcgct 360

tggtacaaat attttaaggc atgcgatcta attcttgatt gttttgcagc ttactaaaa 419

<210> 6798

<211> 306

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C12

<400> 6798

ggtcgaaaat tcacgggtcg acggcggggg tggcggcgcc gaagacatga acgacgatga 60  
ttgatcgtag cagcctcata gcactcttca cttgaaacaa gggcgtcctt ttgacccccg 120  
caacaatagc tctcttgtag ataggcactc tccgggtccag gatagttgag tggatgatgt 180  
ggtgttggtg taaatgtttg ctgtgggtaa aatgcgttca tctgatacta tggtttacac 240  
atccctgttc ttggccaaag aaagaaagaa gacgacgatg aaatcgagcg gtttcgcgtg 300  
tttttg 306

<210> 6799

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C2

<400> 6799

gggtcgacgc ggggcgacga tgtgaatgtg gacgaggcgg atagaaagct cttagatgat 60  
gaaaagaaac ccgatatcac gaaacgacca cacgctccta ttgaagatga ggtggaatgc 120  
aagaagccaa agatagcaga aggctcaagg tgccaaggag aagaacctga ggctggaggg 180  
ataaagaatt cctcctgggt ctgatgacag gggaatgcag taaacaccag aagcatcaaa 240  
actatgatct ggaacagtat cctgaataaa ctatcttctg gattatgaat gaattctgaa 300  
gcatggggct ataagtgaat tatgtaacat ggatttgtaa ctatggtgga tgttaaagtt 360  
aacgttctat cagtaaatcg tgaatgcgtg cgc 393

<210> 6800

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C4

<400> 6800

ggattgtgac cttccggaca gcccaggaca gcaacggggg gcttaactcg tgggcgtcga 60  
acctggagaa gctgctggac ctggtggaga agagctgcca ccaaatacac aaggagacga 120  
tgatccacaa ggcggtgctg aaagcctgaa gtgaacaatt ttgaattgaa tgtggccttg 180  
tttaggttgt gtgcgtagta gactttctct atggatctga attcactttc actgtatggg 240  
taaaactatt ctctctgctc aggtgggcat cgctgtttg ctttggaac tcgtgtgcga 300  
accggtctcg aaatactgta accacaggga atgacgaatg ctatttgctg tatttttctg 360  
aacattattt gtattctttg gcatcaactc ttgctgaacc tggatgtatc tgc 413

<210> 6801

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C8

<400> 6801

cggggggatga aaacccatt tttggaagat atgatggcaa ggaatcacac ctttgttgac 60  
ggaagagtgc tgtctttgca ggatggagta gccatcgctc tgagaatcct gaactctggg 120  
gattcaccgg ttaccatagg atcctgtatt ggtgtgaacg agccaactgc ctactagta 180  
actcagagtt ttgttaaggc tatgtttgag cgagcaatgc cccatttgcg ttggtcatac 240  
acttcccaga acatggagaa catgaagcgc atgtttcaca aggtccatgg catgcccac 300  
tgctgtgggtg ttgtacatac aacgcgcac agatttggat cacagaaccg tgagcatgtg 360  
gagaatggaa gcagtgtcat gcaagccggg ccttgatccg ggaagggggg tc 412

<210> 6802

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-C9

<400> 6802

cggcgtcggc caacgcttac gacttgatga cgggtcgggg ctgatagtag atgggtgaag 60

gggccaaata tatggcccat ttggccactc ggcccgaagc atctcggctt ccaatgatct 120  
 cggcaagcgg tgcattgcag acaacagtga ttgggtgctc ctgaaaagag taaaatgcat 180  
 ccgtgggcat cgaacttggt tcgaaagctc actttgggtca ttgtacttaa gaatacgatc 240  
 aatatgggtca ttatatacga cttgggggtga ttatacagtc actgcctcac tgtatagctc 300  
 tgtattttgc tctgttgact ggtcaaacat cacaattcac aacaccctct ctctatccta 360  
 tgagggtccc acttgtcagt tgacctctgg cata 394

<210> 6803  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-D1

<400> 6803  
 ggggtcgacgc gggagtggag ttgagacttg ttgagttttg atgtttggag tgggcttgac 60  
 ccttgataga tgtattgggt tttgcttgggt tttctgtaat taactgggca acaatcttct 120  
 taattaatag aactggtaaa gcttttgccc gtgttttaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ggcgcccccc aaaaggatca 360  
 aaactttata gcggtctaac aaaataaaa acccttctaa aagagcccc 410

<210> 6804  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-D11

<400> 6804  
 gtcaaaaatt tccgggtcga cggcgagaag gaattggaga tggaacggtc agctatggaa 60  
 tggatgatgc tgatgacata tacatgcggt catggactgg caccattatt ggtcctcaca 120  
 atactgtcca tgagggtcgc atctaccagc tgaagctgtt ctgtgacaag gactaccccg 180  
 agaaggcacc atctgttaga tttcattcaa gaatcaacat ggcttgtgtt aatcacgaga 240

ccggggcggt tgacccgaag aagttcagtg tgctggcgaa ctggcagcga gagtacacta 300  
 tggaacatgt cttgaccag ctgaagaaag atatggcggc gacgcagaac cgcaagctag 360  
 tgcagcctcc agaagggaca ttcttctagc ggggtgtttt cctgcccata tccagttcca 420  
 ac 422

<210> 6805  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-D2  
 <400> 6805

gggtcgacgg gggaacccgg acgaatgcaa gttttgaaaa catgatgatg caatgcaa 60  
 gatgacatga taagatgcaa cacgcaagta gaatgacaag gcaacaacag cgaataactg 120  
 gaggacacct ggcacatcgg tctcggggcg ttacattcaa gtacaagttc cagaaggccg 180  
 ttcttgccaa cttctaaacc catagagttt tcttttgaag caccacactg gagtctaggc 240  
 aagaccatgg cagcccat taccatggga cgcattggag aggtctacaa caggagactt 300  
 aaggacatta tctaccaagt atgtgggcgc cgagacgagc aatgggaagt aatcagcacc 360  
 aggaaggata gatccattgt agctttcatc caggagttaa accagcacat 410

<210> 6806  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-009-Q1-E1-D4  
 <400> 6806

taagcacata gaaagctggt catatgtact tctgggggtg agaagaattc acgtgtaatt 60  
 tacgctccga taccctgttt gtttaaattg tttgttgta tcacctgtag cattagtaat 120  
 gtttgcatgt tcatagatag acaactgtca gggttatatg anggacatcg tctttttaac 180  
 ttatatatgt gttggaatca ttttgcttac atcaaagaaa ttttcagaat tttaaattat 240  
 gttaacacaa taaaacaaat tgtaaggtc aatataaaaa atgttgatgg cattcaaaaa 300  
 atgtttgtga catttaaaat gtttaacacc tattaataaaa atggtcaaac acatatattt 360

gcaaattggt agtcttgat ttt

383

<210> 6807  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-D9  
 <400> 6807

ggtcgacggc caggccaacc ccacaccga gcccggtgag tatgtcgtct ttgtatcca 60  
 cctccgtcgg ggtttaggct tcccgaacga tctttttgtg agagggatca tgttttacta 120  
 tgggttgga ttcacgact tggctccga gtccatcctc catattttcg cgtttattgt 180  
 tgtctgcga gccttcctcc gtgtcaccac ccacttcggc ctgtggctga agaccttcaa 240  
 tgtggagccg aagatgatcg gggggtgtca agcagagtgc ggcggggcgg ccgtaagcaa 300  
 gagggctgat gcctcgtggc ccgagggtc cttccaagag gagctcggct tgtggttcta 360  
 tatcacgct ccgaagagca gcaggtagaa gccgctgcct ccattccgct cgggaactcc 420  
 acg 423

<210> 6808  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-E1  
 <400> 6808

gggtcgacgc ggacaaaaat ttctacatgt gtgaaatcag caaagatttt acaatagatg 60  
 caacttttaa aggaacact tcacgttttc taaaccatag ttgtgatccc aactgtaaac 120  
 tagaaaagtg gcaagttgag ggtgagacaa gagttggtgt ttttgctct cgtttcattg 180  
 aagttggaga gcccttaact tatgactaca ggtttgtgca ttttggcgag aagggttaagt 240  
 gccattgcgg agcaaagagt tgccaaggat acttgggcag ccaactaaag aatccaacac 300  
 agaacgtctc tgcggctgcg gcgcttgaga ataagttgct cgtgcaacag ggcggctgct 360  
 ctcttcaag ggtcaaaaca gagactcgcc tggtaccctg gaccaactg 409

<210> 6809  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-E10  
  
 <400> 6809  
  
 ggtcgacggg gaccaggaac actcataaga aactacacta cacgtaaaca gttacaagaa 60  
 cctacatata tgttcgttcc ccacgctgat gttgctcttg tgtattgctg ctgctgcccc 120  
 tcttttttct catccacag aggcacgcag tggctgttat gcattctatc gccttgacct 180  
 tcgcaatcct gaattctgta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gtaaaataaa 240  
 aaaaaaaaaa aaaaaataaa agaaaaaaat aaaaaagaat aaaaaaaaaa aaataaaata 300  
 aaatataaaa ttataattaa tttaattaa aattaaaatt aaattataat gaattaaaaa 360  
 aaaaaagggg gcccccaaaa 380

<210> 6810  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-E12  
  
 <400> 6810  
  
 ggtctaaatt cacgggtcga cgggagcgct tattgggagg caaccaatt ttattattat 60  
 tctttctttt tgttcctggt tagtaataaa taatttatct agcctctatt atggttgtgt 120  
 tttttgtggt taactagtgt ttgtgccaag tagaaccttt gggaagactt gggggaagtc 180  
 ttgttgatct tgctgtaaaa aacagaaact ttagcgctca cgagattagc tacaactggt 240  
 tactggagag ttatatttag ttgattattt ttgaagatga ttaatagata aatccctcac 300  
 gtccagaaat ttatttcaga attttttgag ttccataagt agacgtttga tatagattac 360  
 tacagactgt tctgtttttg acagattctg ttttctatgt gttgtttgct tattttgatg 420  
 aatctatgag 430

<210> 6811  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-E2

<400> 6811

cgacggggcc tccgtcttcc tcctctccgc ctaccaagag ttcagtgagt ttggaacgga 60  
tggaggacca gcagcaaagt ctctgaagcc caagttcaac ctgtttgtca agcaggtgtc 120  
cgccggcatt gggatggcgg tgccacacat tgacatcaag tctgtcattg ccttcaccat 180  
gtttcttaaa gcctttgggtg gtctcctttt catcatcagc agctcgttcg gagcgctcgt 240  
actgcttggt tacctggcat tcataacccc tgctgtgtac gacttctaca actacgagat 300  
ggaatcccag caattcgcca agctcttcac catgttttca cagaacctgg ccctcttcgg 360  
cgcgctgctc ctcttcctgg gaatgaagaa ctccaaccc 399

<210> 6812

<211> 204

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-E9

<400> 6812

ctccagttat attaccattc tcategggat taggtagaag atctgccagc ccctctgttc 60  
atatcacgaa tatgtatggc tagataggat ctccctgccg caaacctcaa tttagttaa 120  
aactctcagt ctcttcagta ttaaagtgat tcctgtactt tagcgatggt acacattgca 180  
tagttaactt taccatttcc tctt 204

<210> 6813

<211> 277

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-009-Q1-E1-F10

<400> 6813

gtcaaaaatt accgggtcga cggcgttcag ataagaggac cctgtangtt gttcttgtac 60  
atgcattcgc cgtgtcagca gccaggcgac gcggagggga tgaagggcag agagagaaca 120  
tgtttctgtc tangtcatcc tgcttactta ngggaggtgg agggcccgac agaaggcatg 180



caaatattga agagggccga gactaatttg ttaacgggta tttttaaggt ttattgtctg 240  
 tttatttcta ttttatttca actttctata catacat 277

<210> 6814  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-F2  
 <400> 6814

gggtcgacgg gtctgcaaca ttcaaactcg tatgtatctt gcaaactctct atgtctccct 60  
 cctacacttg atgacagatg gaattgaagc gtctcttgat gtgtttgggt ctcttgatgaa 120  
 atctggattc ctttgccaag gcaagtgcac caatattgtc acaaaagatt ttcattggac 180  
 ccgatgcact aggtataaca cctagatcgg atatgaactc cttcatccag actccttcac 240  
 ttgctgcttc taaagaagct atgtactccg cttcacacgt taatcccacc acgacgtctc 300  
 gcttggaact acaccaactg acagctccac cgttcaatat aaatacatat ccggattgtg 360  
 acttagagtc atccggatta gtgtcaaagc ttgcatcgac g 401

<210> 6815  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-009-Q1-E1-F4  
 <400> 6815

cgggtcgagc cgatacgacc aaaaatattg catacatgca tatttgtcaa gtgatttcta 60  
 atgcacacta ttcaataatc tacttatgtt atccagaaca taaatacttc acacactttt 120  
 gtgttttgtc caattgcacg tgtatgggac atttgtacaa tccacatatt aagataacgg 180  
 aaaatgacaa gtttacgttg tgtccaaaaa gtcctctcac gtcacttttg ggccatgata 240  
 agatatagtc caagtctctc acgttttgga ttcagattcg gactgcatag acatacctga 300  
 ctcataacac caacaacttt ttcataccga ctccgaattg ggtgattctt tttttgttgg 360  
 aaactacatt tcgtgctctt tccaacccaa tttgattcac cttcaaatt 409

<210> 6816

<211> 358  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-G10  
  
 <400> 6816  
  
 ggagagaca gcagcagaag cagagcaccg cgaggatccc ggtctgggag tggtagctgc 60  
 tctccggcga ccaagccgaa cgtatgattt tcagcagcag ttgatgaaca aaagctcgat 120  
 gatgagttgg gcagtctaga tccagctgag ggaagcttgg gtcgccgggt cgacgggacg 180  
 accaccgcca gcagcaggcg gcaaacctgc tgcatttat gctgtctctg aaccgcaggg 240  
 atgggttctc atccttttga tctccgaaga tggagactaa gagttaaatt ttgcgtgtga 300  
 attatcgctg gttttttgtt cttgtgtcgc gtaagggtga ccatagcctg tcgatatg 358

<210> 6817  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-G2  
  
 <400> 6817  
  
 cgggtcgacc cgggggtttta tcccgaagca aaacggaaag gaaaaaagga agagttaccg 60  
 agagacagag gagccagggg agggggggtta aatcaagaat aaattataac cgcacggcca 120  
 agaacaaggg agggtaaata aatcgcccat cgcctcaccg cccgggaggg gatgatgtcc 180  
 gaaagcgagg agcacgggtc gtccttgga aagattggcg acaagatcgg cgacaagatc 240  
 catgagttca agaaggattc atcgtcctcg gactcggacg acgacaagaa gaagccgcat 300  
 aaatccaaga agaagcacct gtttggcagg aagcatccgc tccacaacgt ctttggcggg 360  
 ggcaaagctg ctgatcttgt gatg 384

<210> 6818  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-G4  
  
 <400> 6818

gggccgacgg gctcctccat tggacttctc gcattacatg gtgtttgaga aacggatgac 60  
cgagacatag tctttcagaa gcgctagcgc cttacgaatg ggtagaccgt accaacctac 120  
atccccata tctgctagtc taccactgta agagtctgca cgacttagtc aactatgcta 180  
gagcccatag tagcttgtgg ctgcacacgg aagtttatag catgaataat ctcatgatcc 240  
ccttgagcct ggggtggcgg ccaaagaaa acagacaatc gctggaatag ctaggtgcct 300  
caatccaccc agatgtgtgt ttaggttgcc accttaaata aaccattaat taacaatctc 360  
acaactgtca tggatacact cacccaatcc acgtctacta gcataacatg gcataata 418

<210> 6819

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-G5

<400> 6819

acgggttacc ctagaatgcc acctccaagt acctttacag gaacatgatc acccagcaaa 60  
tttcataggt aagtatcaac aaaattgtaa ctgcacatgt actgccaaact gaatcaatac 120  
agacattacc aggtacgac gataacgatg gtcgccgtag cctctgtgag ccatggacgg 180  
caactcgagt cagctcatta tctacgactg tggacttctc gcgcttggcg tcaacttctg 240  
ggaagcggat ccgagaccgt ggaatactat gcccggaag aggtccgtg tacgactact 300  
actgtggacc ggctccattg catcatacaa ggtcgtcgat 340

<210> 6820

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-G8

<400> 6820

ccgggcccgc gggcaacatg atatgtatct tgcttggagc gtcattttat tttgttagta 60  
tttgcttgat tttatttata atagtgtttt gtatcttttag tttcaattaa aatgtcaagg 120  
atagccttta ccatgcttat tttgctagta tacatgttgc tgtttgaaaa cagaaagtgt 180  
accgttggtg caaaaattcc ctagaaaagt cagagaatgg tataatgttg aatctttttc 240

atattgagct ctgataaatc ttctacagca tagtattttt cttataattt ttcgagttag 300  
ggaagtatga tgaatcttgc attctttaca gactatactg ttttggcaga ttgctgttat 360  
gtttgcattg tttgcatatg tttgcttggt taatgattct atttgaggat aggagtat 418

<210> 6821  
<211> 201  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-H10  
<400> 6821

ggtcgacggc gaagacgaaa gcacaaagga agtcgccggg ttctgggggt acctgctgca 60  
gattatctat cagacaaatg caagagctgt gaagcctaca gactgcatca tctgggtcaa 120  
caatttccca ttctcaccg taaaagaata cagtatggat tttctactga taagaatgga 180  
ctcgggtcaaa gctgttttcc t 201

<210> 6822  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-009-Q1-E1-H12  
<400> 6822

ggtcgacggc catgcgatac ttccaccttg ggtacacaca tgcgtacaca cctacatcga 60  
gagaaaatta tggacttgat tgcggttacc acgccctaata taattgagca ttaaaccaaa 120  
cacgtctaaa acctctcttg tgggtggaat gcatgagaat gaagcgcacc ctgtaaacta 180  
tgacggaggg aggagtagta tgaacgtgca aaaccaagta cgcgtatggc tagtcggtca 240  
acgcacttcc tcttggcata tctactgacat gtgggaccgg agtgtgagca aaccggtcac 300  
agttgacggc taaatggcca acccgccgtt ccttgagaga gatgaggagc aagaacacac 360  
agacgggctc gcacggaggg caagatatat tcgagcatgg ttgattgata tca 413

<210> 6823  
<211> 229  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-H2

<400> 6823

gagttgagtt gaatgggtac cttccggcgt tgagagtttt gtttcttacg ctggtacctt 60  
gaacatcaag cgttgctgaa tatgtgcctg cggttgctgt tgtatgtaat gaccacacat 120  
tacaagtata tgagatcgtg caaagatggt gctgtttggg accttcaaag ttaatcggtt 180  
gtcgcaatga ttcacgctta cgttccccta attgtgacat catagatct 229

<210> 6824

<211> 327

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-H3

<400> 6824

cttcctcaca acaatcagaa tcatgatata acacgatggt atctcgctat gccttttctga 60  
taccgcagaa cataaatgca gatcaccttt aaaaatgaag gactgactag acattgggtat 120  
tcatggtgaa ggagatccag acaagtcata ctcatgttaa actaacagca gtgaatgcac 180  
atgacagtgg tgctctccaa ttggtgcttt ttaataagag gatgatgaat caacatgaaa 240  
ctaactagat gggcccttcg cagaggggaag catgaatttg tacagggtgcc atagctcggg 300  
tttgaaataa ggggtgaataa tattttg 327

<210> 6825

<211> 252

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-009-Q1-E1-H4

<400> 6825

ttgactagga gaacttaatg aacaaggagc ttcatgataa gtttcagcaa atgatgactg 60  
aacagggtgca agatgggctg aacaattttg aagaggccat ggagaagatc actggccttg 120  
agaagacgtt cgaaacaaag ctcgataaca gatttaatga actgcttgcg cgtcttccaa 180  
cggctgcacc tgccgcacct ctgcaacaac aactactaat aactccatgg tcgcaaacaa 240  
acctccgctg aa 252

<210> 6826  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-009-Q1-E1-H6  
  
 <400> 6826

cccgggtcga cggggatcca aagaggatgg ctgggaactg tgctgaactg aagatggctg 60  
 aagatcgtca gggtttgctt gagtttgctc catataaata aataaaaatg gcggtataaa 120  
 tcatttagaa cgtctctatt ttgtgcgagc aaaattagtg aacttacggg acttgtcatg 180  
 gaattgcttt gccttttggg aggcgactga atatcagtat ttgagataag gtaaaatggt 240  
 gctgacatga tatgtatata tcgagattct agcttaatct atagtataaa taaatgatta 300  
 gtgccatgtc aaaaaaaaaa aaaaaaaaaa aaaggtaaaa aaaaaattga aaaataaaat 360  
 ttcaatagt 369

<210> 6827  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-A10  
  
 <400> 6827

agtcccgggt cgacgaatac gcagatatga tgctactgtc aaaaacgtct actgggctga 60  
 tagtggtgac ctagtgcga tcgcaagtga tacatcattc tacatcctga agtacaatag 120  
 agatgttggt gctgcctact tggaagggtg aaagcctgct gatgaggaag gcgctgaaga 180  
 tgcttttgag ttgcttcatg aggtcaatga gcgagtgcga actgggattt gggttggaga 240  
 ctgttttatt tacaacaact catcatggcg cctaaattat tgcgttggtg gtgaggtcac 300  
 cacaatgtat cacttggatc gccctatgta tttgatggga tatcttgcca atcaaagtcg 360  
 agtttgtctt attgacaagg agtttaatgt cattgggtat acatta 406

<210> 6828  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-A11

<400> 6828

gacgggatga gcaacacgaa gtactgcttc gccatgagaa caacgagaag cgcccccatc 60  
aacgccagaa acacgacgta gacgatctcc aggatgtaga cgaaggcgag cgtgagcagg 120  
ggggccttca gctgcgcctt agctttcccg aggagctcgc tgaaggtagc gcgctgctcg 180  
ccggagtacg tcaagacggt ggcgaagagg aggaggatcc ggacggcgga gctgacgacg 240  
accgcaaca gcaggtaacc cgcgcttacg agcaggagct ccttggtgtc atcctggatc 300  
tcctgtacga gcttggcgta ctccaggctg ccggggctcg tgccgttttag cgccttgacg 360  
tcgagctgga tctcgtcggc gaggggctgg acg 393

<210> 6829

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-A2

<400> 6829

cgggccgacg ggttacgaac tgtaacgaga gggctttcgg tacatgcagc tattaccgaa 60  
aacgattatc gacccttggc accgagaaag caacgacatc atattttacct ttttattttt 120  
gtgtgtatct ttgccactct catTTTTgtgt ctgatatttc atgactttta atgactcaat 180  
tttcaaaatg acatgacttt tcatgacttg tgttttgggc tagattatta caaatctcaa 240  
cttctaagaa ctataaagta aaagaatgaa taaaagacc cgtcgcaaca cggagaagca 300  
tgtattcata aaccccgacc cctctcgggt catgtcaaca tcgtagaccg tccgggcctc 360  
cgtaagggcg cacggccgga aaaccccatc t 391

<210> 6830

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-A4

<400> 6830

gatcactatg gagaatctca ttacgaagaa aaactagaca agatgcagca caacgacgat 60

gataatgtcg actgcggcgt tggctctcgga tgtgtacaga ataattcctc gctatcaggt 120  
 ggtaataacg caccggaacg gacgctgttc ttgatgcgcg gaatggcaag gcaaagcatt 180  
 ctttcaccga gcaatggtga ttgacgactt gattacagac aagatagatt tggcacattc 240  
 ttacctgtaa agataatttg ccaaataaag ccgtttataa gctttgccac tttgataatc 300  
 tcttgtactg acacaatttg aaagaattcc tttgagatct aaaag 345

<210> 6831  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-A5

<400> 6831  
 cattcagtc tcatacgcca cggcggcagg agtccgcacg caacaacgag gcggtcgagg 60  
 cacgcgcgag atcaagctcg ctgcgagcta gctgccacgt aganacaacc gttgaaccgc 120  
 agcgtcgtcg agcgcgccatc ggagaccgtc atggacgaca ccgatggcca cgcgaccgct 180  
 cgcaatccgc agtcaatct ccacgcctga actactagta cattccaaca ccatgaagct 240  
 cgatcacgtg cgctcttcc tgcaccgctg ctactctcta gtcactcatc aaccaattt 300  
 gtcacgtct cacacttate tataagtacg gtatgcata aactttgcac agacgcatac 360  
 tatttcgggg ttaa 374

<210> 6832  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-A6

<400> 6832  
 cccgggccga cgggaatagc attcgtgatc ttcttgctcg cgtggctcgtg gaggaaccac 60  
 cagaaattcc gcagaaagaa tctctgatag tttggtggga agagtgattt ctactgaatc 120  
 acttcaaagt tactttttct atacataggc tgtacatata tgatgtaact gaaaaacctc 180  
 aggggagcca attccatgtg gtcctgaca gtgacacgaa cctggctcgtg cacagtagcc 240  
 cattgttgc agcttcataa gattgacaat tatagatcaa tcaacaataa tgcataagg 300



catgatgtat tgttgccagc ttcataagat tgacaattat agatcaatca acaataatgc 360  
atcaaggcat gatgtaacga gctaataaat cgagaattc 399

<210> 6833  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-A7

<400> 6833

gacgggtgat gcaagtatct aatgtatggt gtgactgtag atggagcttc tgccgtggag 60  
acccttaggg aggaacttgc ccgagccaag gaacaagcca ggagaagtga tgcggccgcc 120  
ctaaaggcgg ccgaagactt aagagccgaa caggctactc atggcaagag caaagataaa 180  
atagccaaga tggctgctga gctgaaagat gtcgccggcc gatatgagct tcttgaaaag 240  
gaaagccaag tgagagcggc tgacctgaag agagccatgg aggcagacaa ggaaacccgt 300  
tctaaaatca gagcgggagg aggagctccg tcaagccaga tatatcacgg ctgggaagcc 360  
ctttttgttg 370

<210> 6834  
<211> 392  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-B1

<400> 6834

ggccgagacc ctggaaagcc tccaggaggt gcacctcaga gtcaatagcg cagcagatga 60  
aataaccaac ttcatagtag aagatttgaa ggccatcaag aagccgaaga taatcgtgga 120  
tcatgtcatc accagctgaa atgtggcatt ctattggagc acttttctta ctcatcatcc 180  
atctttcccc tctgtttgtc gagattaccg attttatttg cgccattcgt acttcaataa 240  
aaacaggatg ctgccgcatt cctgtacacc gcaagactcc tattgttttt gcttttgaaa 300  
ttcgcgctgt atttcgttat gggcttgtaa gttggtatcg gaggagtga ttttaacttg 360  
aaactgcaaa tgttgggtcaa agatgtttta at 392

<210> 6835  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-B11  
  
 <400> 6835  
  
 cccgggtcga cggggatggc aagagggcgt ccggattcaa tagcttgtct cagcctgaga 60  
 gaaggaacag cagcaagaag ctccagcgcc agctttcctt gcactattaa ttttagttgc 120  
 ctaattcgtc catcatccat ccatcatttt gctgctgaag tgtattaatt cttggttctg 180  
 cttactagat tccaccttat gcgctagctg ttggcgcaag tacctcaacc acctcaaaat 240  
 ttagtagatt tgtaatatcg ttttcattag ccattagtct ctatgttgaa agagtctctg 300  
 ttgaagaaat agctagctag gcctacaact tttcctatgt ctttttttgg aagtatttga 360  
 tgtcttgatg ttttcttttg gaagtatttg atgtcttgat gttggaaaaa aaaagaagaa 420  
 aa 422

<210> 6836  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-B2  
  
 <400> 6836  
  
 gggccgacgg ggtccgtaat atgttataaa gaccgaacac cttagggagt gttcggcatc 60  
 gtgagtttgg ccctatatgc atcagctccg aatgaggtct ttggtcaaat gttgggtttg 120  
 cccggctccc acgttttggg accttacgtt ctgttatatc ggctaaggta gcactgggag 180  
 aactactgcg attgtgccct gggtcatccg gatgagcacc tcagtagaga aagccgaaaa 240  
 ctgactatcg tgatatagcg agagactggg taaccactcg atgactcatc agaatttttg 300  
 ggattcctcc gcattaatga agggccgttt cccgatcatg aacgtatgtg ccccatattc 360  
 ggacgagcgc agaagtacca agggctatat agtagcccc 399

<210> 6837  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-B3

<400> 6837

cgggccgacg ggctggctag gtcactcttc acattgcact gctcccagat ccatatcgac 60  
atgccacgc tgtctgatga ggataaagat gttatgaaaa aatgggggtgc tccaaacaag 120  
attgacttcc tctctctttc ttatacaagg cacgcagaag atgtgcggca agcacgggag 180  
ttcctctcta agttaggtga tcttagccaa actctgattt ttgccaaaat tgagaatgtg 240  
gagggcctga accattttga tgagatcctg gaggaagcgg atggtatcat tctctcaaga 300  
gggaaccttg gaattgatct tccacctgaa aagggtgtct tatttcagaa gtctgtctctg 360  
cacaagtga acat 374

<210> 6838

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-B5

<400> 6838

ccgggccgac gggaagaaca aatctgagge tgcctcagag aagaaatcca aaaaaaagag 60  
cgagccctcc cagccttcca caactgagaa gaaacccaaa gggaaaaacg accatggtac 120  
cgagaagaag tccaaaggca agaaggacgc ctctggatac acaggtgcgg agaagaaacg 180  
aaaagcaaaa gtagattcgc ccaagaaggc tggggccaag aagaaaccag agatgctaaa 240  
gaaggaagag cctaagaaga atgacaagcc caagtcgtca gcgccggcca caactgatgc 300  
ttacgtcgca ccgaaggaag agacgaagaa gccagaagct gccacgcccg atacctacac 360  
cgcaccaaag gtggaaccaa agaaggaaga accaa 395

<210> 6839

<211> 390

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-010-Q1-E1-B8

<400> 6839

cccggggccga cgggacggga acacagaacg tggatcattg atcatctctg cgcgctccca 60  
 agacactaac gggtttggat atgtgaactg agtaggcctc tggccttttc gcactaacca 120  
 ccatgcggga ataagtatgg aactcaagg tcgtacgatt ctccgaaagc tcttttgacg 180  
 gcagtgggtg agcggcgcg cccagttgg acgggaacta gctgctcttg tattaggggg 240  
 tgggtctgct ccaggttgcg tacataatgt gcaggtgtgc caagggcgat gggcccaaga 300  
 ccctgagcg cttaggatgt agatcaacat gctggcctct ctgttgagcc taggtangac 360  
 tacggcgtgt tgatcagccg aggtcgggca 390

<210> 6840  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-C1  
 <400> 6840

gggccgaggg gcaagatgaa ggaggtgag ctgatgag gaaaccact gatcaatatg 60  
 aataactctg gctccttcaa tgtgaagaga aggtgggatg atgatgttgt attcaagaac 120  
 caagctcgtg gagagactaa gacaccgaaa cggttcatca acgacaccat cagaagtgat 180  
 ttccaccgca agtttctgca taggtacatg aatgatgct gctgtatgct ttacagtata 240  
 catgctggaa gaggagcctg tgatgtttct gaattctgaa gatcaatttg tatgacataa 300  
 ctgtaacatc tatgttacct gtacgggtgat atatttacc tggttctaag agtaaagaan 360  
 agaaccact gtttgc 376

<210> 6841  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-C10  
 <400> 6841

ccgggtcgac gggtaggtg atcgataaat acagtatact cattaaagaa atttaaagga 60  
 tgacccgat gcagtacact tttgtgtatg agcgtcgga ataggcccat cttgccgtcc 120

cggcacagag caggctcgag cttgcttaga ggagcaaatt accaacttct tctaccagcc 180  
 tgtcagaagt ggtcgtcgct tagttcctat ggcagctagt catgagacga acaggaagat 240  
 acaacacgta ggaaatgagc aaacttttgc tgggatgttc gtggcccat gtttggcagt 300  
 cggtagctca gttcagactt cgctcgcccc gaaatcatgc accgacagga actagttatg 360  
 cggatagtat tgctgaacat gaagctgacg gcacctgcan agaatacaaa tctattttaa 420  
 aacac 425

<210> 6842  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-C11

<400> 6842  
 cccgggtcga cggggatggt gaagatgcga ctgagtatgc tcataagaaa aattctaacg 60  
 ctatgacgga tccaatgcat tgcagtgtgc catatgtgga agactcgtgg agcttacgtt 120  
 caccgatacaa agacatctag gcacttatac atttgggaaa gattacatca tggctcgacac 180  
 atcagatcaa aagtcacaga cccatatgtc tcagagcaca tctgctacat atgggtgggtcc 240  
 agatggggca tgtagatgt cttcaaacat taggaggaat ggtggagatg gagttacaat 300  
 agtcggtagt aacagttcag acatcgcacg tggcaaagtc actcacagga tcgcacgtgg 360  
 tattgggata ataggtcatg cactgactat aacagtgaac tgcgatggta aagttctcat 420  
 catgcaaac 429

<210> 6843  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-C2

<400> 6843  
 gggccgaccg gatccgtagt taattctcct catgcttata gtcaaaataa agcttttacc 60  
 aaacatatca ttgatgcctt gatgcaatct tatgatgaaa aacttaattt ggaagtttct 120  
 atacctagaa aacttaatga tgagtgggaa cctactataa agattagaat taaagatcat 180

gagtgttttg ctttgtgtga tttgggtgct agtgtttcca cgattccgaa aactttatgt 240  
gatatcttag gtttccatga ttttgatgat tgctctttaa atttgacact tgcggatttt 300  
ccaccattaa aaagccaatt ggaaggatca atgatgttct cattgttgca aatagaaatt 360  
tggtgcccgt agattttatc gttcttgata tagattttaa tccttcctgc cccaataa 418

<210> 6844  
<211> 351  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-C3  
<400> 6844

ctgctacgcg ggcgcgcccc agcggccctt ggcggcggct gccgcccccg gcgacatggg 60  
atgccagctc tcctgcgcca ggacttcctg ccaccgtctg gatccaggta atcagattgg 120  
cacaattcat gtgcgccatg aattagtaat gcgcaaccac tgcactcacg tctgatgagc 180  
cgacaacgac gatgtggtgg taaattcttt ttgcagaccg cgaggccgct gaggcctgct 240  
ccgggcagtg ctatgacggc tgcaagacca agactctgcc gaggcctctc cgcgccggcg 300  
ccggcatgcc caccacgtta ggcccgggtgc tcgccgaact tccttcatcc g 351

<210> 6845  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-010-Q1-E1-C9  
<400> 6845

gggtcgacgg ggtgtggtat tactggcacg tctcatcaaa gcagagatca tgtcccttta 60  
tttacaggat tttcattaat gcaggcgtag ggaacctaac cgtcccctgg gtacaactcc 120  
ttggtgatag gtaagtttag agaccaggg ggaaacgccc ggtattctgg gcctttatat 180  
agagatccta gtctcgtctt ctcccttgcc gctcgctcct tcctcaaccc cggccacccc 240  
aagttccaac cctcgggtca caattgccac cagccttagt catgtccgga tccagccgtc 300  
agggccggtg ggtggcttct tctgtcatgg atgaggatat tgcgaagctc cgcatagcga 360  
ggtatctcac cccaaaaatc tttcatcagc ttccggcaca agggaaagtc ata 413

<210> 6846  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-D1

<400> 6846

```

gggccgacgg ggagacaagg ttgatagcat tggccgacta cctgctccca caaagccact   60
tcccttcaca tcggaggaat tagagtttac tgccaagcgt gaagctgcta aagtgatcgc  120
tgcataggag ggagtgc aaa tcaactgaaga agcccatccg aacttttatt acttacataa  180
gtcctgcacc gggcatttat aacaatcacc tgctcttccc tatagggtgca ttccttgtgg  240
gatccttgtg tttccttgtc atttgtgcta cgcgggaatg acattgtctt cttctggtgg  300
cagtagtacc tcctggtaag caccagggct ggcgggtaaa atatcctgta actgtctttt  360
gagagattag ttcattgttt tcgttaatat aaactttttc cc                        402
  
```

<210> 6847  
 <211> 268  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-D5

<400> 6847

```

acgggtcata aatagggact caggtctcaa gtgaggacta tagactggga agatgacgat   60
gcatgacagt tatctctggg aatagagaat tgtactactt agtactttac cgatgcagcg  120
ttcgtttctt ttttgtgggt agatctgatg tctcgacgta ctgagacata gcgagtgtct  180
ggcgggtgggt cattccattc ttttgggttc gtagttgcca tgtacatggt ggttgatcga  240
ttccttaggt ttttgcgtcc tgcggtaa                        268
  
```

<210> 6848  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-D9

<400> 6848

ttccccggggc gacggggcga aagatgggga atatgccggt gcggatgaag gcggtggtgt 60  
 acgcgctgtc gccgttccag cagcaggtga tgccgggect gtggaaggac atcaccacca 120  
 agatccacca caaggtctcc gagaactgga tctccgccac gtcctcatc acccccgctc 180  
 tcggcaccta ccagtatgcg atgtggtaca aggagcagga gaagctgtcc cacagatact 240  
 aaagtgagg ctttctcaa tattgcagca gtgggaattt ccatgttcta taatccacca 300  
 aaagtgattt aacattttca gaatcacttc tagttgtacc cttttgctct ttccgttgca 360  
 tatgcaatgc agcaagtgtg acttgcaaac ctattttgag gcctcaaag ttgagttgt 419

<210> 6849  
 <211> 413  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-010-Q1-E1-E1  
 <400> 6849

gggccgacgg gatggttaata cttcacacat tattaatttc ttgataataa agtatattaa 60  
 tgtaatgata atttgcataa aaattattca cgcatacttc tattttaaaa atattcatgt 120  
 aattaaaaaa tagttcactt ttttttaatg aaaaatgac gtgcaattca aaataatatt 180  
 cacatatattt aaaaaaatct tcttgtaatt tacaaagttg atcgtgtatt tttttcaa 240  
 tttcatgtca ttttaaaatg tttacttata attccaaaat gttgacgtat tttcaaaagt 300  
 gctaatacatt ttttacaaaa ttatactatg ttttgaacaa ttttcacaca tcattttaag 360  
 gtttatgtaa ctgaggaaac atgaaaattg gttatttaat ttaatacaac aat 413

<210> 6850  
 <211> 375  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-010-Q1-E1-E10  
 <400> 6850

tcgacgggaa acccaagact gagtcttatt agcagattac tcacgatgcg aacgagttca 60  
 tcatgtgagt cgtggccctt gcatctgact caagatctgc gtcatgaggc gacagacagt 120  
 ctgaggcaca tacatcactt cggtcacact gaattgagtt cttgggactc gagctgtctt 180



caacagcttc atcagcactt acatgtattg ctcggtctgc tcacgttcaa tgtatacgca 240  
gcatgcaact tctggggctg actgagaggc anatccctca cgtacatcag tttcaggtca 300  
catagttttt gagtaccatc agatatccat tcgatcacc atgctatcac atcttcagag 360  
tttccggtga tctgc 375

<210> 6851  
<211> 395  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-010-Q1-E1-E11

<400> 6851

tcacgggtga atcaatgcct tgaaatgtat ctccggtgtg cagtccatga aacacccaaa 60  
caatggcgca agtgggttcc aacagctaaa ttttggtatg acaccactca tcaactctcc 120  
ttgaatactt ctccattcaa agctctctat ggtcaagaac caaacctcgg tggcctgccc 180  
accttatctc tgaacctgcc agacaacaag gatgcagact tggactgggc aacacacaat 240  
gacaggctac gtgctcaact tgcccaggca caaacagat gcaaacagaa ggctgatcgg 300  
aacaggacag agcattcttt caatgtcggg gatcaagttt tgctcanatt acagccctat 360  
gctcagtcca tcgtggccaa tcgcccctgc caaaa 395

<210> 6852  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-010-Q1-E1-E12

<400> 6852

gtcccgggtc gacggggatt tcaaaccgcc acccaaggag cctgataggc ccgtggatga 60  
cgatgagctc ttaactatat ccacagtga gcggaatta gtgaaccgg gggatggcaa 120  
acatgcagat ggggaagttc gcaagagaca aaagattgaa acaaggatta cttgtgccaa 180  
gatttctgct ttgactaatc tggctagcaa acacaaggat acacttgctt caagctcgcc 240  
aagttgcgag gccaatggtg ttttggggga gcatgctaca cattctgatg agcatcaaca 300

ttccacagac actgcagaaa cctcacggca agttggcggg gattgtatca aagcaatggg 360  
cagtttgtct agtgagaagg ctgtaaatac caccaaaac 399

<210> 6853  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-010-Q1-E1-E7  
  
<400> 6853

gggtcgacgg gaagcatctc gctgtctgcg ctgacggatg cgctgcggac gctggggtcg 60  
acctccgagg acgaggtgca gcgcatgatg gcggagatcg acaccgatgg tgacggcttc 120  
atcgacttca gcgagttcat ctcttctgt aacgccaacc cggggctcat gaaggacgtc 180  
gccaaaggtct tctgaatcag ttcatttcac ctacgcccgtc cgatccagga gccgatccat 240  
ctacgtacgg ctctgtatat caatttcatt caactaccta ctccgggtccc gatccagcct 300  
cagcttcacc tgaggccggc cctaattttg tttgatcaat ttttttgcta ctagtagtaa 360  
ctagtgatga tcaactgttg accatttatt t 391

<210> 6854  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-010-Q1-E1-F1  
  
<400> 6854

atacccgggc cgacggggaa tggactatga aaagtttatt caggcacaca gagaaacaga 60  
tgctgatatt actgttgctg cggtgcccat ggatgaggaa cgtgcaactg catttggcct 120  
tatgaaaatc gatgaagaag ggaggataat tgaattcgca gagaaaccaa aaggagaaca 180  
gttgaaagct atgatggttg atacgaccat acttggcctt gatgatgcga gggcaaagga 240  
aatgccttat attgctagca tgggtatcta tgttattagc aaacatgtga tgcttcagct 300  
tctccgtgag caatttcctg gagctaata ctttggaagt gaggttattc ctggtgcaac 360  
tagcactggc atgaggttac aagcatacct ata 393

<210> 6855

<211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-F10  
  
 <400> 6855

```

cgggccgatg gggaaccgca ccatgagacg tccaataacg atgtgtgggt caatgaaccc 60
aacatcatgg atgttcctta ctctgcattc cttaatcttc attctacatg tataatagca 120
gacacaacaa tatagttagg acatatatat agtgcaggca atatgaacga gatggggtag 180
aaattaataa atcacttaca gaacgtagca actgatgata gatttatcga gctcgcgcag 240
attgaaaagc tggaacaatt cactcagttc aatttgtaca tagtaatgtt tgaagtgatg 300
ctcatgtcca acttccgcat aaatatattc tttggcgttt ttatttttta tgtaaccctt 360
gtaccatttc agcagacctt tcatttgtgg aggtagattc ttttc 405
  
```

<210> 6856  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-F9  
  
 <400> 6856

```

cccgggtcga cggggaggtt gaaaagctga ctggcaagat agtgaagtgg ctgaagcccg 60
gtgggcatat tttcatcagg gagtctgct tccaccagtc tggggattcc aagaggaaag 120
tgaacccgac gcactaccgg gagccaaggt tttacaccaa ggtgtttaag gaatgccact 180
cctatgacca agatgggaat tcctttgagc tttctctggt aacttccaag tgcattggag 240
cttatgtgaa gagcaagaag aaccagaacc agatatgttg gctatgggag aaggtcaagt 300
gcacagaaga caaaggcttt cagagattcc tggacaatgt gcagtacaaa tccactggaa 360
tcctgcgtta tgagcgcgtg tttggggagg gttatgttag caccgggt 407
  
```

<210> 6857  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-G1

<400> 6857  
 ggtctagaat acccgggccg acggggggcg tatgtgcatt tctattcttc atccacctgg 60  
 tgatgatccc aatgggttacg agcttgcaag tgaacggtgg acaccagtgc acacagttga 120  
 gagtatagtt ttgagcatta ttctgatgct ctctagtcca aacgatgagt ctccagcaaa 180  
 tattgaagcg gctaaggact ggagagaaaa gagggccgag ttcaagaaaa aggtgaggag 240  
 ccttgttcgc aaatctcagg aaatgctctg aaaaaggagg atcatatggg ggagtccaca 300  
 agcactgcaa ttctcttgct ttcaccaa atggggcacctg atgccagcac ttgcacttct 360  
 ccctgttta ttttccgttc agcgtcgggc gaatggtggg gttg 404

<210> 6858  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G12

<400> 6858  
 cccgggtcga cgggaggatg gatgatgtgc gtactgtcgc tcatcggaac tatgtgcacg 60  
 tatagtttat cattcatgat ttagattgaa atcctacatg tcccattact cgagtgtgc 120  
 ctttccttag gacgaatggt gcacatggag acatgaaatt tcgtgtatat gagattcaaa 180  
 tttctgtttc ggacaggcat gggcagcttt cctgaaacga ttattacagt gcctgaagag 240  
 tcagttatga gatcaactta tggattgcat acaacagatg acattattta catgtattct 300  
 tgcttttatg actagcaacg gg 322

<210> 6859  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G2

<400> 6859  
 gggccgaccg ggaggccacg gacgtgcagc aggcacggcg gtgatcggcg tcagcatgca 60  
 aggtcgagtc tgtggcggtg gcgaccggcc tttggtgcgc caggtcaggt ccgcgagctg 120  
 ggtcacggtc gtggcgacga catcgacatg agctactccg gcgatggcga ggccgtggct 180

tagggggcgt gtgttggaat aagccacggc gtttattgtt gtcggacccg acgggcgcg 240  
 cggatgcgcg cgggacgtgt gggtcgcact ggtgtagtcg ggctcgtcgg gctcgtcgga 300  
 tgcgcgcggg atgtgcggga tggaccgccg tggcgagtgt gcatgctggt gaaaatgggc 360  
 accggttcgt ggccgtgcc ag 382

<210> 6860  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G4  
 <400> 6860

gggcccgcggt gtcccggagt aatagtcgta ctagcgccctg ttacgccatg gaatgcttct 60  
 gttaattggg aatcaactgg ccagaaatta aaattcaggg gggcgacgga cctctagcta 120  
 aggtgaaata gtatatcagg agaaaccttg tgcacgcgga gttactacga acatctagta 180  
 tcaagaagaa gcggtcaagt agtgtcatct gtgggatgaa taccatgcaa gcagagacgt 240  
 aagatttgca cgaataaggg aagaggagta ccttcttcgg ttgtcgggtg ggtcacctcc 300  
 acatgtcgcg ccgatcttct tctttttatc ggggaaaccg atgttctgga tgggtgcaagc 360  
 ttggacgaac ccat 374

<210> 6861  
 <211> 299  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-G6  
 <400> 6861

tcccgggccc acgggaatct aaaactgatc actttgttgt gtacatatgg atgcacattc 60  
 gaatgtgcag cctattaaat gatgacatag cctcagtgat gctgcggaca tctttgcaaa 120  
 cgtcacataa tattaccaga aaatccatga tcagcccaat ggagtactac aatctcttat 180  
 aaaccgcaaa cattctgctt tgctcgtcaa tcagattaaa ataagttccc aatgaccgtg 240  
 ggatgttctg aatgtggggg agaggtatat ccaactgctat catctatcta gccaacact 299

<210> 6862

<211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-H10  
  
 <400> 6862

```

ccccgggtcga cggggagcat ttgattttgc tgatgaacag taaaatcaaa agaaatagaa   60
ataataaaca tttcgaaatt ttttggcaca aaagttgcac aggctttcta ggtgtatgca  120
aaaactggtg gcgatatgac atcataggag ctcaggaaaa aaaaatagag tattgagaaa  180
ggttcatttt tttgatttgg agcactaatt ttgttttttc tgtcccgagc tcctcccatg  240
tcacattgcc atgaaacttt gcacgcacac agaaaacttg ttcattgttg atgtatagaa  300
tttttagatt ttttgctgtt ttattttatt tttagatatg atcgtgtcta gctatggatt  360
ttcactacaa aaccctagtg gataagattt ccctattgta tactctaggg gcaatgccc   419
  
```

<210> 6863  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-H2  
  
 <400> 6863

```

gaccacagag cggcggcggc ggcggcggca gcggaagaaa gaggagagag ctccagccat   60
ggtgcacgtc aacttctacc gcaactatgg taagacattc aagaaaccaa ggcgtcctta  120
tgagaaggag cgtcttgatg cagaactaaa gctggtcggg gaatatggac tgaggtgcaa  180
gcgtgagctc tggaggggtc agtatgcact gagcaggatt cgtaatgctg caagacactt  240
gctcacactg gatgagaaaa atccccgccg tatctttgag ggcgcggccc ttctccgtcg  300
catgaacgcg tatggtctcc ttgctgaggg ccaggataag cttgattacg tccttgccct  360
gactgctga                                     369
  
```

<210> 6864  
 <211> 367  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-010-Q1-E1-H3

<400> 6864  
 gggtcgacgg gcaagaggta atgacaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa attaaaaaaaaa aaaattaaaa 120  
 aattaaaaaaaa aaaaataaaa aaaaaaaaaa aaacggggccg ctcaaaaggt tcaaagctaa 180  
 cttaaccttg aatgcaactt aaaatctctt caaaagtgtc accaaattta atttaagggg 240  
 ccttcttttta aaaacttcat aacgggaaaa accctggggt taccaaattt aaccctttta 300  
 aaaaaaatcc ccttttccca atttggttta aaaccaaaaa ggcctaaca atttgccttt 360  
 ccaaaaa 367

<210> 6865  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-H6  
 <400> 6865

gcccgacggg aaaccgaatg ccgaggcggc ggtagctcaa cagagatgag agagctccat 60  
 ccatgggtgca cgtcaacttc gaccgcacct atgggaacac attcaggata ccaaggtttc 120  
 cctattacaa ggaccgtctt gatgcagaac taaagctggg cagtgaatat ggactgaggt 180  
 gcacgcgtga gctctgcaag gttcagtatg cagtgagcat gactcgtagt gctgcatgac 240  
 acttgctcat actggatcag aaaaatcccc gccgtatctt tgagggcgcg ggccttctcc 300  
 gttcgcata accgctatgg tccccttgct gagggccagg a 341

<210> 6866  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-010-Q1-E1-H8  
 <400> 6866

gacgggatcg ccaccgttgg atttctcgca ctacatggtg tttgagaaac ggatgaccga 60  
 gacacagtct ttcagaagcg ctacacactt tcgatggata gaccggtaca cctactttcc 120  
 cctacatctg ctagtctacc ctgtaagagt tcgcacgact taatcaacta taccagagcc 180

cataatgggtt tgtggctgca cacggaagtt tctagtttga aaaatctcat gatccctttg 240  
 agcctgggtg gcggtccaaa agaaaacagg caagtctctg attaccagg tgcctagaca 300  
 ggcaatccta gaataaccag gtgcctcaaa tccaccaga tgtgtgttta agttgccacc 360  
 .ttaagtaaac ca 372

<210> 6867  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-A3  
 <400> 6867

gttcgtaaag agggaagttc aggcgcgtgt ataaacaaaa atacgtcaca gaagttcaac 60  
 gtgagaatag catgaagttc aactactacg ttgaatgaat ttcagatgaa aaacttttaa 120  
 aatctttgcg agtatgaaaa agatgatcaa cacgggaaag ttgcgtgttt acagcagctt 180  
 tcgatcggat agatcacttg ctcaattccg gtgagtggat gtacagctag gatcagtga 240  
 tagagatata cgagaaagca atcgcagtgt atcaacacag tgaagttcat ggtttcatac 300  
 cgaggagttc aggtacttca cgcgatgcat ttttggcgaa tcagttttgc gataaacgca 360  
 taacgaatga tctcgccatt tttaaaaata cgt 393

<210> 6868  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-A5  
 <400> 6868

ccgggcccac ggggcacatg gaagcatggt gtgatgttgc tatatccagt gagagtaa 60  
 acgagtttgc tcgctgtaaa tttcaacagt agcaatttga accttgatcat gaatgtcact 120  
 atgtcagcgt tgagtttcat cactgggacg gtagcaacta ctgacatttg ggaatcgtag 180  
 acttggaact agtgcaaatg ataaattaga tggccccgca gactttctga atgtcgagca 240  
 cgtggaatat tataaggtgg aatgcctaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aacaaaagaa aaaaaaaaaa aaaaaaacca gacaaccaaa gaatcaaaaa 360



aaacagcaca aaaaaaaagc ggcccccta aaggt 395

<210> 6869  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-A7  
  
<400> 6869

aatgcccggtg tcgacgggaa gtgggggacg cctgctccag tggaaaatgg ggtggccaac 60  
ggaagggcgc cagcatcatc cgctacaagc aatctagcca caggtcaaaa ccaaagatag 120  
atgcatgttg agttaattgt aaaatcttgt catccgcatg ttggtgtcag caaggttatt 180  
gttgcgtttc ttgggaatgt aagattagct gtgtgtttat gttgtagttg tgagatgatt 240  
acccttgctc ctatgagtga tgatcttggt atagggataa agttcataag aaggttcgcc 300  
ttaggttttg ggcagtttaa acggaatagc cggaccctgt aggtatcttg atgcataatg 360  
atgtaaatca gttcatggtt ttgt 384

<210> 6870  
<211> 337  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-A8  
  
<400> 6870

aattcccggtg ccgacgggaa atggaggacg cctgctccag tggaaaatgg ggtggccaac 60  
ggaagggcgc cagcatcatc cgctacaagc aatctagcca caggtcaaaa tcaaagatag 120  
atgcatgttg agttaattgt aaaatcttgt catccgcatg ttggtgtcag caaagttatt 180  
gttgcgtttc ttgggaatgt cagattagct gtgtgtttat gttgtagttg tgagatgatt 240  
acccttgctc ctatgagtga tgatcttggt atacggataa agttcagaag aacggtcgcc 300  
ctacgttttg ggcagtttaa accggataac cggaccc 337

<210> 6871  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-A9

<400> 6871

ccgggcccgcac atggggcgaca tgctgatgat ggacaggttc cgccagtggc aggccacgca 60  
caaccggagc tacctgagca cggaggagag gctgcgctgc ttccaggtgt accgcgacaa 120  
cgtggagtac atcgaggcca ccaaccggcg cggcgacctc acctacgagc tcggcgagaa 180  
tgagttcgcc gacctacccc aggaggagtt cctggctagg tacgcgctcg cctacgacgc 240  
tgccggtgat gatacaggca ttacgttgcc tgtggggcggc ggcgacgccg agctgtggtc 300  
gtccggcggc gacgatggta gtccttgga ggctccgcct ccagctggg actggagatc 360  
caagggcgcc gtcacaccgg tcaagtccc 389

<210> 6872

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-B1

<400> 6872

cgggccgacc ggcattgagt ggatgagtat ggagaggagt agtatatata gtgacggtct 60  
tctgaaagga ggtgataaag ccaagcttga ggaagcggtc aatcagttga tggcgatggc 120  
gatggtgacg tcgcttgctg gtaagatact tgatgctccg gctggagccg acaggggtgcg 180  
tgagactggt gatcaaggag tcttgtgtgt tgctgatgcc tgacgctgtg ctgtagtttt 240  
tctgctcctt tgaacgctgt ggtccattgg tctctatata gttctctcta ctgctttgaa 300  
ctctaattgt gtggttgacg gtggtagcag gttttggccc cgtgggagtg cttcgatgcc 360  
gatcactcag agcgtgtttt ggccaacttg ctgcctctct tttccagttt gttg 414

<210> 6873

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-B3

<400> 6873

cgggctcgacg ggggagccat acatgaagtt cctgatggac gatggttcag atgagtcaat 60

tgacagcatt ctaacctgtg atgtacccaa ggatgtggtc ggcaacatgg gcctttggac 120  
ctttgatgac atgcccttgt ctgctgggtt ctactgaggg aatcgaggtc gctgggtgcc 180  
tgtatatata gacaaaggaa taagtattca ggacatcaac aagtgccttg gtctgggtgcc 240  
tctagaattg agcagtagcg atgtcagtct atgggttatgt ctagcttaaa tggtcagggtg 300  
actgagggtct tttgcaatag acctctgtct tgtgccccca gactatatta tatctatata 360  
tgagaccagt atgtgatggg gaactgctta ttttgtattc atg 403

<210> 6874  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-011-Q1-E1-B4  
  
<400> 6874

cgggtcgacg ggtttgcctt aatatgccat ggtcaactcg catgaagatt gcgctcggtg 60  
cagcaagggg gcttgagtat ctccatggag ctgagagatc catcatctat agggatttca 120  
agacatcaaa catcttgcta gacgcggatt ataatgctaa gctttcagac tttggcctag 180  
caagaactgg acctagtga gaccaaacc atgtctcaac tcgggtcatg ggaacttatg 240  
gctatgcagc tcctgaatat gtgatgactg gccatttgac agcacggagt gatgtttatg 300  
ggtttgggtg tgtacttctc gagatgatta ttgggaggag ggctgtggac aagagccggc 360  
cgagccgtga gcataaacta gttgagtggg cagcncct ccttgtccac aaccggaagc 420  
tcttcagaat ca 432

<210> 6875  
<211> 367  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-B5  
  
<400> 6875

gggccgacgg ggaacgccag gagttactga gcaggcatgg atggatggat gtttgagcgc 60  
cgagcatcaa ctgtgggtgt gcataattat ggttatgtca gacgtgttaa ttgtcgcaat 120  
ttccaattgg tgggtactata tatatgtttg ccaaataatg tgtgcaccgt gtgcaactat 180

ggaacagcga agtggtaatc attttgtgag ctttgaaca gtgaagtgac acatatttgt 240  
cctaaaaaaa aaaaaaaatc aataaaaaaa aaaaacaaaa actagacggc ctagacattc 300  
aatcaaaac gaaacagagc catgagaatt cataacacac actagcctgg aacaaaaata 360  
caaaacc 367

<210> 6876  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-011-Q1-E1-C1  
<400> 6876

gggccggccg gggcgcctac agattcagct gtagatgaga ttgtgggttc aattcctcat 60  
ttagctgcag gaaccaattc ctcagaaggc ttgcctgcct catggcccat aagtgggctg 120  
gaaccaatgc ttcgctgaag caatttcacg ggcccaggcg caaaattagc acccccggga 180  
agcccagcca tgttgagact tctggcccag ctgacctatg aaacgatttt taatgggttg 240  
cgtggatttt cttataaata gtaccatctt gtttatatat cttaaataca aaatcatcta 300  
agcgggacga aactaagaat atcaccttgc tttaatagta ggtatagata tagatataga 360  
tatgccattg gcctttgggt ttgccccgtc tcttgagaa ttagaact 408

<210> 6877  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-011-Q1-E1-C4  
<400> 6877

cgggtcgacc gggaggaggt gggatgggcc gcctgctggc tgggccgggc agctggctgg 60  
gctgcacagg gaggagccca ggtaagggtc tcccttttat ttatttctgt ttttgtaatt 120  
tctgacattt gttttgattt aataaaatat taaatcattt atttacotta tgccaatttt 180  
tgcaggagct agatatatta ttccagagct cttttataat tggcataata tttggacata 240  
tattaatata tataactaat atatttccaa tgcaaattt tatgcattaa ttccaaatgc 300  
ccagaataaa tacctatgag ctcttaaaaa tattgggttg atttttatct ctgtccaata 360

tttttagaga gcaacatgag cattttcttg gacccttttg gagaaatttc tatttgggtc 420  
att 423

<210> 6878  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-011-Q1-E1-C5  
  
<400> 6878

ggtacctagg tcagaattcc cgggccgacg ggttcaggtc gcagtacctg caggactaca 60  
tcgaggcgac cctcgaatcc agcaggaacg ggtccaacgt gcagggctac ttcgtgtggt 120  
cattcctgga catgttcgag tatataattcg gctatcgcat gggttttggc ctctatggtg 180  
tggacttcga ctctgaggag aggacgaggt accagaggca ctccgccaag tggttcaccg 240  
gcttcctccg tggcggcgac ctccaggccg tggtctctgcc cggcaaggtc tattcccagt 300  
gatcttcaca cttcttcaca cttccgtagc ccacgaagag gaaaatgcac taataagcct 360  
ggatgggttag gtgttgtttt tgggtggaaa ttgagctttg cttgggcagt anggtgtata 420  
ngcctctgct tc 432

<210> 6879  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-D1  
  
<400> 6879

gggccggccg gctatattat taatcaccac atgatatgtg ttttgcttgg agcgtcttgt 60  
atgatttgag tctttgcttt ttagtttacc acaataatcc ttgctgtaca caccttttgg 120  
agagacacac atgaatcgga atttattaga atactctatg tgcttcactt atatcttttt 180  
gagctagata attttgctct agtgctttgc ttatatcttt ttagagcacg gtggtggttt 240  
tattttatag aaattattga tctctcatgc ttcacttata ttattttgag agtcttataa 300  
aacagcatgg taattttctt tgggtataaa atttagtcct aatatgatag gcatccaaga 360

gggatataat aaaaactttc atataaagtg cattgaatag tatgagaagt ttgat 415

<210> 6880  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-D11  
  
<400> 6880

atgcccgggc cgacgccgat ctcgaaatcg ggctaaggta cgactggggg aagttctacg 60  
cgtccaatac gttctatgat ccggcaaaga agcggcgtgt gctgtggggg tgggtcggcg 120  
agaccgactc tgagcgcgcc gacgtcgcca agggatgggc ctgctccag tcggccctc 180  
gcactgtggt gctggacacc aagacaggaa gcaacctcct tcagtggccg gtggaggagg 240  
tggagacgct ccggaccaac tccactgacc ttggcggcgt caccattgac cgcggtccg 300  
tctttccact cagccttcat cgcgccacc agctagacgt cgaggccaca ttccgctcg 360  
atccgctaga catcgccgtc gccaacgatg c 391

<210> 6881  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-011-Q1-E1-D2  
  
<400> 6881

cgggtcgacg ggcacccgag gtgagcacgc ctgctcctcc ccctccccta cctctgccta 60  
gctagggttc ttcaaatttt agttgcatca aattagttag ggttcatcta tgggtggaaa 120  
tgaatcggat acggatgcgg ctacagatgtt ttcttagata ttgctcaaata aggatatgtg 180  
cttgcccaag tggccgggtca tgtttgcagg ttacacctct gactggccta tgttttgccg 240  
gagtgttgat tcatttccgt tccgacaaat ttcaggcgct cgatatgtcc tatttttagca 300  
aaggatcatgc cggatttgtt cgtgaatttt ggcatgactt gtgccagaat ttgtaggaaa 360  
tattgagtgc cccggatttg tgtgttgagt atcctggtag ttgtcttcga tcgattttc 419

<210> 6882  
<211> 266  
<212> DNA

<213>       Triticum aestivum  
 <223>       Clone ID: LIB104-011-Q1-E1-D3  
 <400>       6882

acactagcaa caactgatgg ttatacacca tgacgtctat gcgcacatat ttgaaacaga   60  
 gcttgtcata tatatagcac aaagccatta tgagtatata tagattattg tataaggtta   120  
 ctctatagat gaagaactaa ttcattcagct ctagctaagc tgggtacaga gctaattcat   180  
 cagctcacca gtgatcatgc gtgttgctga atatctcatc taagtgcgtg ttgtgtaatg   240  
 agattaatgt gggaatacat catggg   266

<210>       6883  
 <211>       433  
 <212>       DNA  
 <213>       Triticum aestivum  
 <223>       unsure at all n locations  
 <223>       Clone ID: LIB104-011-Q1-E1-D4  
 <400>       6883

gggtcgacgg ggcagacggg cagcgtgggg tacatggccc ccgaggtgct ggaggggagg   60  
 ccgtacgacc acaagtgcga cgtgtacagc tttggcgctc tgctgtggga gacgtactgc   120  
 tgcgccttgg cctaccgaa ctacagcatc gcggacatct cgtaccatgt ggtgaagctg   180  
 ggcatccggc ccgacatccc ggggtgctgc cccaagccgc tgcggagat catgacgctg   240  
 tgctgggatg gcaaccgga ccaccggccg gagatggccg aggtgggtggc gatgctggag   300  
 aggatcgacn acaccaaggg caagagcatg acgcccggcc gtcccgacca cacctcgcan   360  
 ggctgcagct gcttcggctt ctccaagtag tagtagtagt cgtcgtcgtg ttgtgatgct   420  
 ggtcggtctg ctg   433

<210>       6884  
 <211>       88  
 <212>       DNA  
 <213>       Triticum aestivum  
 <223>       Clone ID: LIB104-011-Q1-E1-D7  
 <400>       6884

cgggccgacg gggaatctaa aatcgggacc gacgtgcgtg ttttcgagc gaaggtttca   60

aggctcactt tcctaaagta ttgtactg

88

<210> 6885

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-E12

<400> 6885

aatgcccggg tcgacgggtc aaccaactga tgttgtaaaa gcaaaagagg gatgtttttg 60

atatttgaag gatagaatct ggaaacatat acagggctgg atggaaaagt gtctatcggc 120

tggtggggagg gaagttttga ttaaatcagt cgcacagtct attccaactt attccatggc 180

atgttttaag ttgccccgtg gactatgtga gcacatcaat gggctactac ggaaattttg 240

gtggggtagc aaggagggtc agaggaagcc ggcgtgggta tcatggagaa ctatgtgcaa 300

acctaaacat atgggaggca tggggttccg agatattgaa ctttttaacc ttgctttact 360

ggcaaggcaa gtatggagat tgctccaaga gccggatacc ctatg 405

<210> 6886

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-011-Q1-E1-E2

<400> 6886

ggtcaagnaa tccgggccga ccgggaagcg gaacgaggtc aaggtttcgg aggacggcac 60

cgtccgcgcc acagacttca agaagattac cgctggaaaa gatgacaagg gtcttaagac 120

ttacgatcct ggttatctca aactgcccc cgtgcgttct tccatctgct acatcgatgg 180

ggatgaggga attcttcgct acaggggtta tccaattgag gaggtggctg aaagcagttc 240

atgtgtgag gtcgcctacc tcttaatgta cgggaatttg ccaactcaga gtcaactggc 300

aggctgggaa tttgcaattt cacagcactc tgctgttctt caaggactct tggatatcat 360

acaatcaatg cctcacgatg cccaccccat ggggtgtcctt gccagtgcaa tgagcacact 420

ttctgtcttc caccagatg caaacctt 448



<210> 6887  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-E3  
  
 <400> 6887

gggtcgacca atcaacttac agtattcagg cttccaagac catcccttag gccccctaac 60  
 tctgacgata aatgaaccct gtggagagac aacaagccaa aatcaaacag attaggggtcc 120  
 acaactgttt caatgggaat gcagcgctca ctattgaaat atcatacaca tcacaaaatt 180  
 agctattact gttatatcta gataactcat aatgaagaaa acctacacta aaggcaagca 240  
 tcaccacaaa gtataccttg tcatagactg gaatgaaata gtagccatta ggagcacatt 300  
 ggggtgctttc tttcaccaaa ccatcaacag tacacagctc aacctgattc aaaaag 356

<210> 6888  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-E4  
  
 <400> 6888

gggtcgacgg ggatgagttc cgacagcacg acggcatggt gacgatcttg atgttctacc 60  
 gtcgcatggc ttcgcctaata caccgctaca atattatcaa ggattatggt ggaggggggc 120  
 accgcacaca gctaaaagat caatgatcaa atgttggtgtg tctgggggtgc cccctgcccc 180  
 cgtatataga ggaatcgagg atggggcccg ccaacgaagg tggcactccc aacgggggga 240  
 atccacatct aaaccttgtc atacactaga atgaaatagt acccattagg agcacattgg 300  
 gtgctttctt tcaacaatcc atcaacagta cacagctcaa cct 343

<210> 6889  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-E9  
  
 <400> 6889

gggtcgacgg gactcatgaa cactcttgca aggttgagta tcaagttgag gaatgcagcg 60  
 cgaaaaaccg agccaacaat gagtgcaccc atactaagac taccagagcg gtcttgccgc 120  
 gtggaggaga tatcgtgtac agtggtgcac accagcactc tggaggagtc ggtgcttctc 180  
 tgcattggcca ggatggacgc cttctatgtg aatcgcttcc aacttacggc acagggaagg 240  
 aggcagggaa cgaggcaaac tacattgtcg gcatgtcgag ttgctaccct aagccaggat 300  
 ccatcaaggt cagcgacggc gaggtgctga ccatcgtctc caactacagc agcgaccgag 360  
 agcacaccgg cgtcatgggc ctggtctaca tctcgtggg cgaaccgcaa c 411

<210> 6890  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F11  
 <400> 6890

cggtcgacg ggacacgtca tctgaaaagt ctgcaacatg aacgttgag cccgaaaacg 60  
 ggtcagcaca tggaatatgc tagcaatgta acacatagag agtaatgaac agaaatatgc 120  
 tatactacat gcatatatga ctagtggaaa gctctatggt tacagttttg cataaagcca 180  
 atttttccct actgcaaagg aataaattta atttaactat catggtgggt gttaaactt 240  
 gagaaggtag acaccctctc aatcccaatt gagcatcatc attaaacca acagattaaa 300  
 ttaaagtaac atgatgagat tcacatgata atccagatac tagatactca aaacatccat 360  
 aaccggggac acggctaacc at 382

<210> 6891  
 <211> 269  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F12  
 <400> 6891

cgggacgaca cgagtcacaa ttgtcacatt gctttgcatg gtcattgagt tgacatcgta 60  
 tttgtggcaa agccaccatg cattatTTTT taccgtgtc actcttgatt caatgcacca 120  
 tcccgtgaca ccgctggagg cattcgtata gagtcatac ctggtccaag tttcgagttg 180

taatccctaa gttgtgatca caataagtgt gatgatcatc actattagag cattgcgcac 240  
 aaaaggcgca caaaaaagaa agggggccac 269

<210> 6892  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-F3  
 <400> 6892

gggtcgaccg ggatgacaag caatcataac acaatacact acatgtaaac agttacagaa 60  
 acctacatag atgttcattc ccaacgctga tgatgctcgt gtatagtgtc gcaggagtgc 120  
 atcgttattc gcattctcaga gatgaacaca gtgggtgtaa tacatcttat ttgtttggca 180  
 gtcgcaatcg ctcgttctat atctgaatgg ccgtgctatc ctatcttcga aggttcataa 240  
 atgttgaaca atagggcgca tgcccaatgg aattgcgata ggtgtcccc tgccaatgac 300  
 aatgaagaca cccgacgatg tctccaacaa gaacgatgcc cataaagcca tggctgtcct 360  
 caaggtgctc gtcaacaaag tta 383

<210> 6893  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-G10  
 <400> 6893

ccggggccgac cgcgacggaa acctcaccta cggcggctac tccagcatgg tgggtggtgca 60  
 cgagcgcttc gtgggtccggt tcccggacgc catgccgctg gacaagggcg cgcccctgct 120  
 gtgcgccggc atcacctgtt acacccccat gaagtaccac gggctgaacg ctcccgggat 180  
 gcacctcggc gtgctggggc tgggcgggct cggtcacgtc gccgtcaagt tcggcaaggc 240  
 cttcgggatg aaggtgacgg tgatcagctc atcgccgggg aagaagcagg aggcctcga 300  
 gaggctaggc gccgacggct tcgttgtcag caagaacgcc gacgagatga aggctgcgat 360  
 gagcaccatg gatggcatca taaacacggt gtctgcaaac atcccatgg gccctct 417

<210> 6894

<211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-011-Q1-E1-G12

<400> 6894  
  
 cgggtcgacg gnnanncgca cggctgggct ggctgggccc gccagtcgg aggaagggtt 60  
 tttttataa aacatttttt acacacaacc aaaaatagaa taaaccatac aagataaaaa 120  
 taaaataggc atattatata tcaaaatfff cagaaaaaga tttcctacaa cctaaacata 180  
 tttatagcat caaatgaaat ccaaaaaatt caaataaagc aaagagtgc atagctctaa 240  
 taaaatcaaa taaaaatcat tttaaaaaat accaaaatga tttcaaattt atttctctcc 300  
 aattttctaa tgtagtgaat cattttaccc tattttccat atattttatt tttggtgaaa 360  
 aataatttga ataaaaccca aataactcca aattgaaaat aattttaaag ggacattaaa 420  
 ttt 423

<210> 6895  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-011-Q1-E1-G2

<400> 6895  
  
 ggggtcgaccg gcctcttcct tacaccacgc tcgtatgccg ggcgaaagcc caaatccatg 60  
 ccggattgag cgacagcggc gctccgggcg tcgtcacctt cttgggggtg tcgttcttgg 120  
 tgagcttggg gtggatgtga tgctttgggt gcttggcggc ggattggtct tcagaagccc 180  
 tgccggtctc ggcggagcgg tgcttcatcc tactcatgga tggcggcgta tctcggcggc 240  
 gtggcgagcgt ggagattcgg cgtcgatgt gtggcgatgg actcgcgag gacgacgaag 300  
 ctgtctggtg tcgtggtgac gtcgatagct gaggggccag acaaggtaca agcctcaatt 360  
 tgatctgaag acggacctgt ggaagatggc ggcgacgaca cagagtgcg tctgaccgga 420  
 ttatgccccca gacc 434

<210> 6896  
 <211> 407

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-G9  
 <400> 6896  
 gggccgacgg gttagactaa atgtttgaat gcaatagcaa tgcaaagatg agctatttgt 60  
 tgaaatatgg ctgccagccg gctaggccga catatatgaa tcgacgcgtt gggcgccctg 120  
 ccgattcaaa tctaaaacat gagccggatc gctcgagtga tttttcgaag aggaaaagcg 180  
 ccggatcgct cgccacggtg agcaaaggat ggacgcgaaa tgaatagagc tggcttcagg 240  
 cacacggcgt ttctgcatgg atgcatgttc cccatgccgg gccggctccc caccatgcgg 300  
 gcatgggctg gtgcaagtct gatacgtgcc caggcagtct gccagcgcgt gtgagttgtg 360  
 accatcctca cttatcgaat taagattttt ctgaccctaa aaaaaga 407

<210> 6897  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-H10  
 <400> 6897  
 cgggcaacaa cgagcggcga gagtggagaa ctggatttgg gggaaagtggc cgtggggaag 60  
 gacgaacccc gtggttaagt cagaagtagc agtagcgcgt tacagaaagc gcgctactgc 120  
 tacattagct acagcgcgtt ctgggataca cgctactgct actactttct cttttccccc 180  
 tttatcattt agttttcttc acattttatt tttttccttt caccttaata tattttctttc 240  
 attttcaatt acctttctat ttgctttcca ttttaatttta tacccttttag cagtagcgag 300  
 tttagattaa aacgcgctgc tacaaagaaa gtagcggtag cgtggttcga tataggctgc 360  
 tactactatg tgtagcctat cggataagct gtgggaattt tagtagtaac gtgttttagaa 420  
 caagac 426

<210> 6898  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-H11

<400> 6898

atgcccgggc cgacggggaa atcaataaac tcgctcagca ttataagggtc aagctgggag 60  
aagactgata ggctcctgac gttcaagctc ctccctcgta gactgactgc agtcaccagt 120  
gcaagcagat tcttggtctg cccagggcat cccactcac agatgtgatg gtgtgatagt 180  
gataatccat tggctagtgc tcctcttggt gtgtgatgat ggtaataaag cattgatttg 240  
tttgggtgccg ccatgcccta gttgtggcca gctgcaaagc agcagttcct tagtgtaaca 300  
acagtcgata cattacgacc gtttgatggt acgcttggtg tattaataat ctttgatga 360  
cctccaaaat aaatacaaat a 381

<210> 6899

<211> 346

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-011-Q1-E1-H2

<400> 6899

accgggcccc acaaggggaa aagggggaaa cgatgcgggt gtcacacagc cgtccgatgg 60  
cgctcgctggc gaggtcggcg gcggtcgggt tgctgcgaat cgacgacgac ggctgtcggt 120  
gcagaggacg aaggcaacaa cgatgacggc actgcggggc gtcggggcgt cgtttgtctc 180  
agcaaagatg aagggcaggt catggcggag ctctggacc gtcgagagg acgaggggga 240  
ggcgatagcc gcggtggtgc tcgtcggtag cgctggcgcg gtctggtgag gtggggaaca 300  
gccagggaga gagagccagg gaaggggaaa gagctccang gaagag 346

<210> 6900

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-011-Q1-E1-H3

<400> 6900

gggtcgcccg gagggcatatc agcagctcga ggcatgggg ttcaaccgtg agcttggtgt 60  
ggaggtcatc ttgcatgca acagggatga agaactggct gccaaccatc ctttggatca 120

tggccacgag tttgaggaac accaatagat gttagattgg tgttaccgtc gacagacaca 180  
 agagtcagtg acacaagcag tacagtacgg tgtcgttctt atatctcgct gct 233

<210> 6901  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-H4  
 <400> 6901

attccccgggc cgacgggggt ctgagacatg gtgacagagt cacacacaca atttatgtga 60  
 taacttgggc acataagtcc aggaaaattt ccactgatga gtgcaaagaa agaaccgcta 120  
 ggatgcgtgc taaaaaagat tgctttgtga aagcgtgttc ttctagtttt catgataata 180  
 atgatgaaga tctaaaagtg attgatgtgg ctccatttaa acctttgttt tccaatatga 240  
 atcttgataa atatgggact ggcgattagt caactttagt taaaaggcgt ccaatgattc 300  
 ggagttttta gatcttgatg caaaaattaa taaaagtggg attgaagagg tcaaaacttt 360  
 acatagcaat gaaccacta ttttggattt caaggaattt aattatgata attgctc 417

<210> 6902  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-011-Q1-E1-H8  
 <400> 6902

cgggggtctg gacatggtga cagagtcaca cacacaattt atatgatatc ttgggaagat 60  
 cagttctgcc atagtgcctt tgctgctgct gctactttta gcctttgttt ccttggaac 120  
 atgttcagag tgtagataag aaacttatgc tactatagat ggatatatgg cattcggtag 180  
 atcgacagca agaagacgga tattcttttt ctgtaaaaca tgaccctttg attgatttgg 240  
 gttcactact aaactttcta atgcttcttc atacgactac cacctctgat taatctcctt 300  
 tggattcagt tatgtacttt tgtttgtttc caactatttt tcaactcgggt ttttgtgggt 360  
 gttggtagct ggaatgcaga gcatgaagtg gtgtaagggt gtgttgatgt gggacattgc 420

<210> 6903

<211> 277  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-A1  
  
 <400> 6903  
  
 gaccgaaatg attagtgccca gtgtttgaat ttgttctgtt tgtcatggta cgaggaaaga 60  
 tcacgaaata gataatgtct ttacacacat tttgtctgta tctaatacatt atccgtatatt 120  
 cactcctacc aactggtaga ttcatgtttt tccctcattt gtctgcccatt tgtttcagaa 180  
 taattcacat tgacaacaat tacaataaag cagccactct agacgattct agcattcgat 240  
 atcttgaaag caaattcata gcgcttctat attctca 277

<210> 6904  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-A10  
  
 <400> 6904  
  
 cggtgccgac gggaaggcaa aggaagaaag ggcaagctct acggaccttt gtaattcggg 60  
 caacacaatg gtgtcattcc ggtggtggat aattgggttc aactgggtgg taaccggcgg 120  
 caaatgctc gaaaaagggtg ctccaaaact ctattgggta actgtcgttt ttctcgtgtt 180  
 tgatgtcttc ttctgtgttt tttgtgttgt tgtggcctgc ttcattggaa ttgcactgtg 240  
 ctgctgcttg ccttgtgtcg ttgcaatact gtatgctctg gttggccagg aggtgcatc 300  
 agatgcagat attggcattc tcccagata taaatattct gatcccagtg agaatggaga 360  
 aatggaacg gacgatgggg ttatgattcc taccctaat aatagtggaa catctacaa 419

<210> 6905  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-A12  
  
 <400> 6905  
  
 gggttgtact aaaaaaaat tgcaaaactt caggcccaat aatcctggga aaacctttcc 60



taaaaacaat tggggcaatt attgaaatga aagaaggaaa cattagattt caattccccc 120  
 caaggaaagg catggaacac tttccaagaa ataaaattaa gttaccatat gaatctatca 180  
 tgagggctac ttatggatta aataccaaag atgacaatac ctagatcttt gtattatgcc 240  
 tagctagggg cataaaacaa tagtgcttgt tgggaggcaa cccaatttta ttttgtgttt 300  
 tttgtttttg cttctgtttt tcaataatta cacagtataa attctatagt aattatgtgt 360  
 tagtgtttta attactgttt gtgccaag 388

<210> 6906  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-A2

<400> 6906  
 ccgggtcgac ggggcccaac accactcaat accttcgggg gaaaccctag atcagctgat 60  
 cggatgttgg cggcaatcat atgtcgtaac ccccttgggg gcggcattct tggaggtgca 120  
 ctcggttcg cgggaccagc ggacggcttc tttggtggag tgggtgctca tccatacatt 180  
 gatggcgacg gatcttgacg gcgtggcgta gtgcagattc ggagttcgat gtgggaggat 240  
 ggactcgtgc aggaggacga cgctgtctgg cgctcgtggtg gcgtcaatgg cagagagacc 300  
 tgacacggta gacgcaacag tacagctctg aagatggact cgtggcaggt agctgcggcg 360  
 gcctcatacc cggcaggcat cctgattgag gagtgcgccc gactggtagg tgcccca 417

<210> 6907  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-A3

<400> 6907  
 acaggagtac gaacgcaatg ttcaggcacc acccagcaaa cctcaggttc atcgctgacc 60  
 tcaatccttt ctcttcccg gtttcggcac gggaatcatg caagtaccac caggatcgga 120  
 cgggccacct atggcatgct tttcaggatt ggcacgtcca ctatggcatg ttcatgacgt 180  
 ctcataacga cttcgtctga tacatctaca gctgttataa atctgaatgt gagtctcatt 240

cataacgacc acactttcag gtctttctcat ccagtcaata ccacacatac cagcaacagg 300  
cttctcaata cttgacatca tatcatcggy acgtccac 339

<210> 6908  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-A4  
  
<400> 6908

cccggtcgga cgggttgat tagcacggga ttgttggcct tcagaggcaa atcatgacag 60  
accaagatga gggccttgag aagctggaag agaccgtgct gagcacaaca catattgcgt 120  
tagcagtcac tgatgaactt gacctgcacg caagactgac tgatgacctt catgatcatg 180  
tggttggtac aaactcgcgc cttcagcgtg tgcaacagag gcttgcgggt ctgaacaagc 240  
gcgccaaggg cggctgctcc tgcattgtccc tgctgctgtc caccgtcgggt ataattgatgc 300  
ttgtggttag tgtctggctc ctcatcaagt atctgtaacc tctgccaac tcaaattcagt 360  
ttcaagtgtg cagttcattc aaagacagta tggttac 397

<210> 6909  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-A6  
  
<400> 6909

attcgcggt cgacgggggc catacagcgt tgtgcttttt gatgagattg agaaggcaca 60  
tccggatgtg ttcaacatga tgctccagat cctggaagac ggaaggtaa ccgacagcaa 120  
ggggagaaca gtggacttca agaacacgct cctgataatg acatcaaattg ttgggagcag 180  
cgtgattgag aacgggggga ggaagatcgg gttcgacctc gactcggacg agaaggacag 240  
cagctatggc aggatcaaga gcttggtgat cgaggagatg aagcagtact tccgaccaga 300  
gtttctcaac cgtctggacg agatgatcgt cttcagacag ctgaccaagc tggaagtcaa 360  
agagatcgcg gacataatgc tgcaggaggt tttcaccatg ctcaagacca acgacatcaa 420  
cctgcatgtg ac 432

<210> 6910  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-A9  
  
 <400> 6910

ggggcccaagg gaaggaacaa actgaaagga ccaatggatt aagaatttgg ttttgaatt 60  
 gcctcaaggt gatcctcaaa ttctccgaat taatttcaaa taaactacta aaataatttg 120  
 ggaaaatgca accggaacc tgggaattgg gcatagaagg tcagttctga tgccagataa 180  
 tgtccacttg aaagagatga ttattagggtg cgcgcaagtg caattgtgca atgatagtgt 240  
 caattcggtta tttgttcaaa gtgacatgaa aacgaatatt ctacaactga gttggatctt 300  
 cactccaaca caacatcttt ttttgtggaa gaaatggtga caacttcact gcatatgaca 360  
 tgagtgtaat atatattaaa tctcatgttt catatgttcc aaaatc 406

<210> 6911  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-B10  
  
 <400> 6911

gggaatttga taaatcaaatt ccatgggtta ataacgaacc gtgttaactt accataacaa 60  
 tacctcaatt ccaatcgaat tccaaaattg gaattccaat aggatacaac atacacaggg 120  
 tgtacgcatt acatatgaat gaaacatatt cattaaccta agcatgccct caattttcat 180  
 taatgagttg atattatatt aattgaatat cctttatgtt ttacgagatt tttgctaaag 240  
 tttcatttac acctaatata catcgaatag accctgttac tgtgagaatt cttaattcaa 300  
 gagttatacg gagggactta tgtcaccaca nacagaaact aaagcatgtg ttggatttaa 360  
 agctggtggt aaagattata aattgactta ctacacccca gagtatgaaa ctaaggatac 420  
 tgat 424

<210> 6912  
 <211> 432

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-B2  
 <400> 6912  
 cccgggtcga cgggggcccc gagcaaggcg gttgagcggg tegtgcagac caggctccgc 60  
 tcctcaggta atgtgctcag ctaggatgaa ctggccgccg agaacgtcta catcaatata 120  
 atggtccaag tagaactgga gaagctcgca ctcaagggtc ccagcactgg tcagcaagct 180  
 ccgtccagtc caagcgccgc agcggggcgac ctgaatactg tatgcgccgc ttcgaccgcg 240  
 tcggcatccg cagcaggcac gtcgaccgac aagaataaga actatgccgt gctggctggc 300  
 accctgtctg gtctgaacgc cctgagctgg tacctcctgt caaagcctaa taatacggag 360  
 gaggttgtcg actgatcggg ccatcctgca ctggattttt acttccttac tgcacatgga 420  
 cctgcgcgat ga 432

<210> 6913  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-B4  
 <400> 6913  
 ccgggtcgac gggcgccggg accaaggaca acggcgccgc ctgcgggtac aaggaggtgg 60  
 acaaggcccc cttccacggc atgacctcct gcggcaacat ccccatcttc aaggacagcc 120  
 gcggctgcgg ctctgcttc gagctcaagt gcaccaagcc cgacgcctgc tccggcgagc 180  
 ccaccatggt caccatcacc gacaagaacg aggagcccat cggcccttac cacttcgacc 240  
 tctccggcca cgccttcggc tccatggcca agaagggcga ggagcagaag ctgcgcgacg 300  
 ccggcgatgt ggagatcaag ttccggcgcg tcaagtgcaa gtaccgcgcg ggcaccaagg 360  
 tcaacttcca cgtggagaag tctccaacg aaaactacct ggccctggtg a 411

<210> 6914  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-B5

<400> 6914

gacgggcttc atgaatttga tgcattgtga ttgtagtttt taaagcctag tattgaacat 60  
tgtagatgag ttctgtctat gattcttccg aaaaagaatt tgatatggaa gaggaggagg 120  
atcttgcgat gatcctagct atgcacatca ataaaaaacc gaagcacggt gggtcgggta 180  
ttggtcggca aaaaaattgg agggatagga tcgatgccca taatagattg atgaggtact 240  
atcttgtgga gaatcccaca taccgggagt cgtactttcg tcgccgggtt aggatgagca 300  
ccgagttgtt caggcgcatt gcagagaaac tagcgagcca tgaccgggtt ttttcagcaa 360  
aggaagaacg cctccagaga gctcgggcat 390

<210> 6915

<211> 374

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-012-Q1-E1-B9

<400> 6915

ggcaacaacc cctggaacgg taatttggaa aatcctttcc tcaaggaaaa attaaccggg 60  
ctaacaaatc ccccttctgt gcctcctttg ggggtgttgg gttgcaacgg tgactgattg 120  
caactcaatg ctgtggggtc atactgtcct tggttgcaaa tatcacgact tgcacgcgc 180  
aatcatgac anacactatt cagaagaaat tcaagggttc ttcaaccag ctgctatatc 240  
agtctgtcc ttaccaatca ttgacactgt ntcttatcgg ccggttcctt gatggattcc 300  
tgactaacca aaacgtcttc gctttcaatt acacatctaa cgttgtgttt ttcaacgtcc 360  
tgtcctgttt gaaa 374

<210> 6916

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-C1

<400> 6916

accatctgca tcaagcattg agggccaaca aactcaagaa ttcaaacag ggacattgaa 60

aaaaggtggc aacattggct acagttcagg atacaccggg ccttcgtgag ggaattcttt 120  
 tttaccccc cttttttgac tttctcgtcg atgcaatttg taaagtccgg ttgaatttat 180  
 atgctgactt gacttgtgtg cgaagaaagg atgtttgacc caagtatagc ttctggtagc 240  
 tgcagccggt gattctttca tatgttggtg accgatctgc ccaccgccgt ttgctatgta 300  
 attcaaagag ctaattgagt gctgtactgt tcataccac tcagggttga gtaagagtaa 360  
 cccaacgatt ctttttacca aataagatgc ata 393

<210> 6917  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-C10  
 <400> 6917

acggtcgtac aatccgggtc gacggggcat gacactaata tcacaacctt catatctcaa 60  
 aacattcatc agttaccaa cttccaatat aattcatggc acccaatagg aaagttttta 120  
 ttatacccaa cttggatgcc aatcatatta ggacaagttt cataaccaa gaaaactacc 180  
 aggcggttct aaagactctc aaaatgat ataatgaagcat gagagtcat ctatttctat 240  
 aaaataaaac gaccgccgtg ctctaaaagg ataaaagtga agcactagag caagtgacaa 300  
 actactccga aagatataag tgaagatcaa tgagtagtca taattatgca actatgtgaa 360  
 gactctctaa catttagtaa tttcagatcn tggatatttc ttcaaacatc aagcanaact 420  
 atgtaaaatg aca 433

<210> 6918  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-C11  
 <400> 6918

acctgctgac cggcgggcggg ccacgcgga aggaaaataa gggaagggcc cacaaccgct 60  
 cggtaggca aggcaaggca aggcgcaagc gtatgcgcgt tccctttttc ggacggttgt 120  
 acagcgggca agggaaaagc caggaaaaa gagagcgggtg gctcgttttg gcacggcccc 180

ggtcggtcgc atcgctttct tccgcggcat gggcgggcag cggcagcgat cgggtccgtcc 240  
atcaatgcag tcggccttgt gcggtgggtc gttgaagggt gaggttgcta ggaaatggaa 300  
atggtgctcg ctggctggcc cttgtcgcgt tgctgcttt tgcgtccggt tt 352

<210> 6919  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-C12  
<400> 6919

ggggccaccg gaactattga ccagggaacg gcaaaggcca aaatggcacc cgggttcaag 60  
ccaaaggacc tggcccctaa cacaagcacc aaggagaatt ggttcaacgg tgtgaactaa 120  
ccgcggcatc ttcttcagag gagccaaaga agctccagtc tctttccgta atcgctctta 180  
gaccatggca gaagtgaat aacaccgcga cccggggcgac ctttcagccg gtgtcgccct 240  
tgcccttgtc tcattctgat gcaataaggc ccgaagaaat ttgaagagtt tgtttgtacc 300  
tttgaatatt atagagcatg caccgagcag tcgtgatgtt tgaatcaaac cgtcgccttc 360  
aagcgcttga ttttgatgga tgctgtttgt tttc 394

<210> 6920  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-C3  
<400> 6920

ccggtcgacc ggataatcaa ggtaacggat ggcaatgttc ccaagagtgg ccctgtcaaa 60  
gacgaggagc aaattgcttc cctgaggcta aaaagataaa gtcaactatt aaggaccacg 120  
gttaaggata aggattccgt tcctgcttgt gatgttcaaa aacctgcaca tgcatctgaa 180  
aacattggca ccaatgattc acaaaacttg caatatcctt caccctaattg gacctactgg 240  
gttgacctga tgagaacata agatgccaat ggcaatactc taaattttgg tgtcgagtac 300  
gagcgtcaaa aatggcacc agaggacgag ctctggatct gcttaagggtg ttacgcagtt 360  
caataagtac ttttaactgtg ctgtgcagct tcttttcaga aacctgggac tgcaacttgg 420

gtgcagttgc

430

<210> 6921  
<211> 383  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-C4  
  
<400> 6921

ggcgatgttc ccaagagtgg tcctgtcgaa gacgacgagc atattgcttc tctgaggcct 60  
aaaagatcaa agagactact gaggagcacg ggtgaggata aggaatccgt tgctgcttgt 120  
gatgttgaga aacctgcaga tgcagctgaa aacaatgaca acaatgatgc agaagagttg 180  
caatatacctt cagcctagtg gacctactgg gttgacctga tgagaacata agatgcgaat 240  
ggcaagactc caatttttgg tgtcgaataa gagcgtcaaa gatggcaccc agaggaggag 300  
ctctggatct gcctaaagtg ttacgcagtt caataagtac ttttaactgtg ctgtgcaact 360  
tcttttcaga aacctgggac tgc 383

<210> 6922  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-012-Q1-E1-C6  
  
<400> 6922

aattcgcggg ccgacgggga acgtgctcac catcttcgag gaggaaggcg ggcggccgga 60  
cgccatcatg atcctgacgg tgaagcgcgga caacatctgc agcttcatct cggagaccaa 120  
ccccgggcac gtgcggtcgt gggagaccaa ggacagccag ctgacgatgg tggcggacga 180  
cctgaagccg cgggcggtgc tgacgtgccc ggagaagaag ttgatccagc aggtggtggt 240  
cgccagctac gggaaccgcg tggggatctg cggcaactac acggtgggca aatgccacac 300  
gccaaggcc aaggagattg tggagaaggc gtgcgtgggg aagaggagct gcgtgctggc 360  
cgtgtcgcac gaggtgtacg gcggggacct caactgcccg nggcacacgg ccacgctggc 420  
cgt 423



<210> 6923  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-C7  
  
 <400> 6923

attgccgggc cgacggggat gtatactggc cgactggcaa gattaactta tttaactatc 60  
 aacatcttag caaaaataacc cgatacaaac gccatgggtgc taacaccatg tgaaagagaa 120  
 ttgaagacat ataaattcct tttctaagaa ggggcgacct agccagccgc caggacgacg 180  
 gctccccctt accggcgacc tcagtcacgc gcggaggggg gtcaccggat ccacgcatgt 240  
 ggatcatgta gctttaggtc ttaggtagct tacttttttc gtcgttcacg gtcttggtct 300  
 gggcagcggc actaacgcgc ttgaatagat aagatcccca gctatcggtc ctatggttga 360  
 atatccccgc tatcgggtccg attgaattga aat 393

<210> 6924  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-C8  
  
 <400> 6924

gacgggggta ggcggcagcg atacgcggcg gctcgggtgca cgcgcgtgca aaacgtgcgc 60  
 tctgggcgcg ccagagcgt gcacgccaac tgttcggcaa aatgccaatg cgtgccacag 120  
 ggcttgggtg aggctggcaa ttagcagacc taggttagga gtagctagga tcttagtgga 180  
 caaggttact gggtcagtgg attaagtaca cagtgcacaa taagaatcat gtcaaaactg 240  
 actatgcaca ccaagtgttc gacagaatgt catgggcacg taggcaactc ttgggggtggc 300  
 caaactctcc agatcatatt ctcttttagat gataaagagg gtggcaaggt tacttggtca 360  
 agaccagaaa ctcgtttagt caaaaatttg agaaaaccaa ttttgggcag aaactaaa 418

<210> 6925  
 <211> 194  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-C9

<400> 6925

ttatacttgc gctgtccgat ctgctccggg aggacagtga gtcttggtc gacaaggctc 60  
ccgttctata caagtcattcc acgggatggg aacgctgcat agattgcctg tgcattgcga 120  
tgcaactggca cgttctctcg tgtacaagat agtgtgtgag ccgagccgcg ctttgttgcc 180  
cgtactgttt gtca 194

<210> 6926

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-D1

<400> 6926

cggtaagat atcccgggtc gacgggcttg atcaagagct acgccttcca tcgtactct 60  
tacacctccc ccgtgcaaat aagcagccgc cgccgagtct gccttgccaa tactctctgg 120  
agatgcaaag cctcccatgg gcgattatcc gaagcgctcag cagagtcggc tctgctgcgc 180  
ctcgtctggtg gcttccagct cttgcccgcg gagatgcccc tccactcatg gagtcagtac 240  
cgtcttatcc aaatcaacat ctctataaaa ttttccgtga gaagcatagc aagctggatt 300  
tgccgtgcct ctcttctgt tctgtacta cagcagccat ggataaagca gagaggatga 360  
aggcagcaga ggagagcaat cccatggtag agacaagtgc aatacaagat gtgtattacc 420  
agccaatcat cccgggtagc a 441

<210> 6927

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-D11

<400> 6927

cgggtcgacc gtctagtacg aaatctaggg ctgtttatga cacttatagg aatacccca 60  
caaattgatt ggaaagaata acttgagggtg gttcgtaccc taccataatc tcttcatttg 120  
ttctccgcta ttatttactt tggagtgact ctttgttgca tgttgaggga tagttatgtg 180



tctctggggtt tgcaacgaaa acttgggtata ttgactatac gaccattaac taaaatatgt 420  
ctatgggttg 429

<210> 6930  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-012-Q1-E1-D3  
  
<400> 6930

ggccaagata tcccgggtcg acgnggattc taaggagctc caaggacggg atgcccacca 60  
tcatttctcc agaccagtac aagaagaggt tcaggaaggc catgtcaaag tacttcctaa 120  
ctgtccccga ccaatgggtca ccttgaatcg tcgtcacttg atgcctacta ttatttgcct 180  
attcgagtgc aagatgggggt gatggcgact gggaagcggg acattgtttt ctttctattt 240  
ttttctttgg ttttgttaga atagtcgata gatctgcgcc ttttgtatgt tatttttgct 300  
cgcatcaggc tggactggga tcgctggaga gggcgtagcg taaatgttgc ccccatccag 360  
gcagagccta tggatcgata tgtgtatatt atatataaca atgctacact gtaacatgaa 420  
atgaaatgca gacgaat 437

<210> 6931  
<211> 416  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-D6  
  
<400> 6931

gaccagctcc tgcagcatac tgacgccagc gagaatgtcg tcgtcgccag cgaaggactt 60  
caggaacgcc ggctcgtcgc gatggctgac gccgcgagtg cgcttgtgag agccctcacg 120  
tgctgtgag agctcgttcg agggctccgc gtcgcaccgg gacatctgtg ctgtggctgc 180  
ggcttcgcgg cgggacctcc ctagtgcttc cgccgccttg gtctttctctg cctgggtata 240  
tgccaccct aaactcctcc taccgggtcat ggcggaacga cttgacagag aataccagtt 300  
tgggtgggtga tgaggagagg aactgtgaag taattttcga gtgggtagtt tttatagccc 360  
ggtgctaagt gtgaacacat attagtttga taggtgtgaa cagatttgca attata 416

<210> 6932  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-D7  
  
 <400> 6932

tacgatcta caattcccg ggcgacggg acgatcatgt tgccttgac atgacttcta 60  
 tgtgcaagg tatgatatac gtgaacgggtg aaggcatggg tgcctactgg acgtcattca 120  
 taactcctgg caaagtcgct tcccaggcag tgtaccatat tccacggcca tttttgaaat 180  
 ccaagaacaa cctattggtt gtatttgagg aggagcttgg caagccggaa ggcatactca 240  
 tccagacagt gaggagagat gacatctgcg tgtttatctc ggagcacaac cctgcgcaga 300  
 taaagccatg ggacgagcat ggaggccaga tcaagctcat agccgaagac cacaacactc 360  
 ggggattctt gaactgcccc ccgaagaaga ccatccagga ggtagtcttt gccagcttcg 420  
 gcaacccggg ggggtcatgc g 441

<210> 6933  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-D8  
  
 <400> 6933

cgacgggaag gacgccctca agttcgagga ggtctacatc gccgtcctct gcgtctacaa 60  
 tgacatcaac aagtacttgc cagggccgca ctacgacccc ccgtccaagg agaggctcaa 120  
 ggaactcatg agagagtgtg acatcgacat gaacgggtctc ctggaccgcg aggagtctgc 180  
 ggagtctatc cggaagctga ccgccgagtc actctgcgcy atcagcctca agctgatcat 240  
 cacgctggtc gccgccccctg cgctggcgct ggcgaccaa agggaaccg agggcgctccc 300  
 cggcgctggc aatgtagtgc acaagggtgc caatgccatc tacgccgccc ccatcaccat 360  
 ggctgccgtg ctcatccaga gatccgccg 389

<210> 6934  
 <211> 365

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-E1  
 <400> 6934  
 acgggaacgc caggaattac tgagcaggca tggatggatg gatgtttgga gcgcgagcat 60  
 caactgtggt tgtgcataat tatggttatg tcagacgtgt taattgtcgc aatttccaat 120  
 tgggtggtact atatatatgt ttgccaaata atgtgtgcac cgtgtgcaac tatggaacag 180  
 cgaagtggta atcattttgt gagcttttga acagtgaagt gacacaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaacacaa aaaaaaaaaa 300  
 aaaaaaaaaat aaaacacaat aaaaagaaaa aaccacaaca aaagaacaca aaaacagacc 360  
 cccac 365

<210> 6935  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-E10  
 <400> 6935  
 cgggtcgacc ggagaaacaa aacgcgtcgg aagccgctgc aaggctttca cagcagaga 60  
 agcaacctac cactaggagt gcatcatatt tacaagcgtc acagcacatt gcaaactctg 120  
 gccttaccac aaagccacat cattttgatc gccagattc cgacgaattc cgtatggctc 180  
 cacttgcgcc catgtctacg tccacgcaga cgccattaac aggatctgaa ccatctatag 240  
 agtgccggat gacttaatta ctttttgagg ctaacccgac cttgagcgac tcaattcatg 300  
 tgttgacaat gt 312

<210> 6936  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-E11  
 <400> 6936  
 gggtcgactg acggagatta ccccatcatc atgctcgcta cacgtggcat tgaccgtctc 60

gacacagcac tcctcctgcg cacgcggatt gccgtctcga tccacatgcg acagtgttgc 120  
 tccgaggeat tcaccatgtt ggccgcctct tctcagcacg tgaccaacca tacactcttc 180  
 ttacacatgc acggagtgtc tgcccatgta cacgtcatcg tcatcccagg ttacgtgtcc 240  
 aaaatcctgc tgatcatcaa gaaggactgc attgcacttc agctgctgac cgttttcttc 300  
 catggcaciaa ggatcgcggt aacacaacag ggatagacgt caa 343

<210> 6937  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-E12

<400> 6937  
 cttgaaggat ggtgatcctg gtttaacctt caaaggcggg aaaaaaatc aaaggcccca 60  
 aaaaacggcc ccaagggtac ggcccccaa taatggacgg ttcaaccatt ggagcacctc 120  
 attaaggtgt acgacggcga agatgaagca agacaagaca gataacatta atctgaagt 180  
 ggagtcta atagcatgtgaa tagatgatgt aaaatacatc accaaaaagt gctagatgta 240  
 aaatgcatca accacgccgt ggccgctctg acggatgctg taaatactgt tgactctgaa 300  
 cttaattgaa gaaactgaac ttacagtcg aaactgaatt ttactgtgga aactgaattt 360  
 tactgatgaa actg 374

<210> 6938  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-012-Q1-E1-E2

<400> 6938  
 gacaacgatg agaatgaatt agccatcctt gaattcatac atcttctcgt ggaaaccatg 60  
 gaccgtcact ttggcaacgt gtgtgagctt gacatcatgt tccatctgga gaaagtccac 120  
 ttcatgcttg aagagatggt gatgaatggt tgcacgtggg agacgagcaa acagaacata 180  
 ttggcgccca tccagcttat ggagaaaacc tcgtaaatag tgtgtgaact caagagcgcc 240  
 taggtgatgc ttagcctctt cctcccgctt tcacataga ttccccggtt gtgtgaggag 300

aaatgccgaa caactgctgt atgcatgggt ggctgtgttc acccgactgg aaaatgtgaa 360  
atgttctgta atgttgaaaa tgaagacccc atcattactt aacaacagtt ctgtaaaata 420  
atactg 426

<210> 6939  
<211> 373  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-E3  
<400> 6939

gggtcgaccg gggcgggtgac caagaccctg aactacaaca agcaacatag cgtggacatg 60  
cacctgctgc cccctcaggt acagaatcct gtatatggct ggtatgacag aaccactgct 120  
gttagtagta catagatagg cctgtaattt gtgacactaa ttctttttcc tctctccct 180  
gatgccaacg gcaaagcctt gttcattatt atcaatacga actacagact gctttagtagca 240  
ctagataaga gttgtgtatt cgatcccttt gagttttgat ggccattttc actgggacgc 300  
tcacatcttt gtatggctgg tacagtagca atgagaatcc tatgcccaaa aaaaaaaaaa 360  
taaaaaaaga aaa 373

<210> 6940  
<211> 273  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-012-Q1-E1-E4  
<400> 6940

ttcctttttg atggtcgtag gctccgtggt gagcagaccc ctgatgagct tgagatggag 60  
gaaggcgacg agatcgacgc catgcttcac cagaccggag ggtgctttcc tggcccttag 120  
aaggagcttg ctgcagcctg gctgttctat gtcgtatgct acctttagaa ctagagtaaa 180  
atgtaagaag tgaaagaact tgtgaggcta tggttctgtg ccatagcctg aagggggggtc 240  
tggaggtgaa acaacatcng agtactgttg atg 273

<210> 6941



<211> 133  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-E8  
  
 <400> 6941  
  
 tcttaccatc cggcgttaaa acttttggtc ctaaggcggg caccttaaca tcaagcgttg 60  
 ctgaataagt tctgcggat gctgtgtat gtaatagcca gacattataa atatatcgga 120  
 tgttccactg tct 133

<210> 6942  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-E9  
  
 <400> 6942  
  
 ctgcaaaacta tcaagttata tacatatata cataaatggc cgcacaggag gcatcataat 60  
 actttcaggc aaaattataa acacaacctt tataatttaa taaacattgt tcttacaatg 120  
 ggaatacatg tctactagaac ataatatattt tcgagcaccg agcctctgtt aaacgagcgc 180  
 cttcaaggac ttcttcaaag tagtgcccgg ccgatactcg gtctacggcc gaactgtggg 240  
 ttgcaatagc ggtggcctcc atctctgccc agtatgtctt gacacaggca agagccatcc 300  
 gcgcaccctc taggcacgcc gacctcttca tagcgtcgat gcgcggcaca gcaccaagga 360  
 actattgcac taaactagaa taacta 386

<210> 6943  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-F1  
  
 <400> 6943  
  
 gggctgcacgg gggagaagat attgggaggg gcaatggttt tggtgctgtc gaaataccat 60  
 tcacaccacg tgcaaaacgt gttttagagc tttcattgga ggaagctcgc cagctaggac 120  
 acaactatat tgggtccgag cacttgcttc ttggattgct tcgtgagggg gaaggggtgg 180

cagctcgcgt acttgagtct cttgggtgctg accccagcaa tattcgtacc caggttggtcc 240  
ggatgattgg tgagacaaca gaagctgttg gtgctggagt tgggggaggg aacagtggta 300  
acaagatgcc gacacttgag gagtatggga ctaatttaac aaaattagcc gaggagggaa 360  
agctagatcc tgttgttggg aggggaaccac agattgaacg tgcgtacaa attttgggc 419

<210> 6944  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-F10  
<400> 6944

acaacgactt agttttggac aattcggtta aaaacctctt aattattaaa aataaaccca 60  
ttttcacaaa ccaacacaaa atcctaattg gtaataagtt ggattccaaa aaccaaagat 120  
tacaaaaagg ttcaagggtc aaaggaaaaa aacctaaggc tgtagggaat aagattcctc 180  
ctgtgtctga tgacagggga atgcagtaaa catcataagc atcaaaaacta tgatctggaa 240  
cagtatcctg aataaactat tttctggatt atgaatgaat tctgaatcat ggggctataa 300  
gtgaattatg taacatggat ttgtaactat ggtggatgtt aagttaacgt tctatcactg 360  
caaataaac aaaaa 375

<210> 6945  
<211> 182  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-F11  
<400> 6945

acggattaag aattcctcct gtgtctgatg acaggggaat gcattaaaca ccataatcat 60  
caacactatg atctggaaca gtatcctgaa taaactatct tctggattat taatgaattc 120  
tgaaacatgg ggctataagt gaattatgta acatggattt gtaactatgg tggatgttaa 180  
gt 182

<210> 6946  
<211> 372  
<212> DNA



agcgggttgga ttcttttagat ctaatgattt ccgaatatga agggaaatgt aaagaatctc 120  
ctcccggtt cgagcatgac tccgctaaaa aattttaaac caaagatggc aatacctaga 180  
tctattcttg cttttatgcc tagctaggag cgtaaacga tagcgcttgt tgggaggcaa 240  
cccaatttta tttttgttcc ttgcttttta tttatgttta gtaataaata attcatctag 300  
cttctattta gatgtgtttt tatgttttaa attagtgttt gtgccaagta gaacctttgg 360  
gaagacttgg gtgaagtctt tatgatcttg ctgtaaaaaa cagaaacttt aacgctcacg 420  
agattagctg ccatttt 437

<210> 6949  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-F4  
<400> 6949

ccgggtcgac cggcagggag aggtgaattg gatacatcta aaatgtacca attccttttg 60  
atgtttaatt cctactccct ccattccaaa atatagtggg ctgcgccttc ccgaggtcaa 120  
actttgacca taaatttaac caatgagact gactgcatg ggagaaaaaa ttatataatt 180  
aaaaacttct tttgaatatg aattcattgg tataactttt gctccgccc cagtcgatct 240  
cgttggttaa atttatggtc aaagttgaag cacgggaata gaggaagcac tatatttttg 300  
atcgagaga gtatgttttt taaaaaaaa tagactagca tactaataaa atgcaagaag 360  
gcatatttcc ctttttgagg tgctgcggga aataactttg aaatattcat aggacaata 419

<210> 6950  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-012-Q1-E1-F6  
<400> 6950

aattcgccgg gccgacgggg tcaattatgt taattattat ttgaatgcaa aacttatgct 60  
tcatttgctt caacttataa ttttaaattt tcaattattct actagcgcat cccctactat 120  
gcaagaattt ttgtcttgga taagataggt tctagtgtta tagatgatat ggaggtaaag 180

agagtttact tgaagacgga gcatgggtat actttcaacg tcaaattata taatggagac 240  
acatacaccc attttgaatg caaaacttgg caagcactat gcaaggctta tgcatttgag 300  
cctgatatgg ttatcacctt tgatattcgt ccggaagatg atattgaagg taatatagac 360  
atctgggtcg atgtgcaaac gcctccagtt ctaccatttg gtgacttttt ctcaaccatg 420  
catgcat 427

<210> 6951  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-F9

<400> 6951

tcctaaatc aatgaaagga cggtaaccct ggtaaacaaa aaatccaaac cccaacaaaa 60  
cctaattcac ccctgggcaa ctccaaatg attgactgac ggccgggaat aaaacaacgg 120  
tgctaaacag actcggcctt ggggtagatc cgtacggcga cggccaggcc cagtatcgcg 180  
agggggacca agaactggag gatcttgatg actaactccg gaagggatta aagttattgt 240  
taatgatgat gacttcagca ccatttttgc tgatattgag ggccctgctg gaactccata 300  
tgagaatgga gtattccgga tgaagctatt gttgtctcgt gacttccctc actctctccc 360  
aaaaagggtc ttctcgacaa aaataatcca tccaacat 399

<210> 6952  
<211> 366  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-012-Q1-E1-G10

<400> 6952

ggcgagatca aggaattcct gctgacggcg cgccggaagg acgcgcggtc ggtgcggatc 60  
aagaggacca aggacgccgt caagttcaag gtgcgctgct ccaggtaacct ctacacgctc 120  
tgctcttcg acgccgacaa ggccaacaag ctcaagcagt cccctcccacc aggtttgagc 180  
gtccaggagg tttaagcatc aagccagaca atgccttttc tagtagcggg aatgttctat 240  
ccatcttgct ttagtaactg ttagcaggct ctccttgttt acccccatta agagagtttt 300

gatgtcncaa gactggaatg taatgttggg agctatgtgg ttgaacctgt caggattttt 360  
gtgtaa 366

<210> 6953  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-G12  
  
<400> 6953

aaggctaagt taattggatt caactacatg cgtgaacatg tgccaagtcg agtcactcaa 60  
tgcatttaaa ggaggatacc accccatcat accatatcat aatcattcta atagcatgtt 120  
ggcacgcaag gtaaaccatt ataactcata gctaattaag catggcacia gcaactataa 180  
tctctaaatg tcattgcaaa tatgtttact tcataatagc tgaatcaggc acgatgaatc 240  
atcatattta caaaaacaaa agaggtcgag ttogtaccag cttttctctt ctcaataagt 300  
ccatcatata tcatcattat tgcctttcac tgcacgacc gaacggtgtg tataataata 360  
agagtgcacg tgcattggac taagctggaa tctgca 396

<210> 6954  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-012-Q1-E1-G3  
  
<400> 6954

gggccgacgg gaccaaggaa aatacaagca ctggaacgag gggacagttt gtgtggcatg 60  
gtggacgcag tgtaggata gcaaaggcta ccgaaaacgc aaataaatga ataggatgga 120  
tgggtgatgt atagtgctaa gtatgggaag gaatagacca cgcctgggcc tttccattac 180  
gtcttaattg tatagacaag tatgtgcaat cctgtctaata ctttaaccata aaaggagat 240  
cacaaatata tttcatggtc ctcggtttag ggaattagga gtatatcaca atcccgatg 300  
atattagtct gacagatatg aataaagata atctaagatg gatattaggt aatgattcat 360  
gttcagtaca tatattatct tacagccacc ttctttactt gttcaggccc gcagctgatg 420  
ctc 423

<210> 6955  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-G4  
  
 <400> 6955

gggaagggtta aaaacctgat tggcaggata ttgaattggc tgaagcccgg tgggcaaatt 60  
 tccatcaggg aatcgtgctt caacaattct ggggattcca agaggaaagt gaacccgacg 120  
 cactaccggg agccgaggtt ctacaccaag gtgtttaagg aatgccactc ctatgaccaa 180  
 gaggggaatt cctttgagct ttctctggta acttccaagt gcattggagc ttatgtgaaa 240  
 agcaagaaga accagaacca gatatgttgg ctgtgggaga aggtcaagtg cacagaagac 300  
 aaaggctttc agagattcct ggacaatgtg cagtacaaat ccactggaat cttgcgttat 360  
 gagcgcgtgt ttggggaggg ttatg 385

<210> 6956  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-012-Q1-E1-G8  
  
 <400> 6956

attcccgggc cgactatcac gatgtccggg gtcttgtcgc gaatgatccg catctccata 60  
 ctacgcgaaa atagccgagc gaagggttag tgcagcggat gaaggttcaa catactgtgg 120  
 atgtcatcaa aacgcatgac gattgtacgc ccgatggagt tatccacaaa gccattgccc 180  
 tctggcacct tggccgctaa aaccgggtat gccacatcct tctccctgag acgccgcgtc 240  
 tccaaagcac gaacactgtc atgcacactc tgcataaacac cagttgcagc attgaacata 300  
 tttgtcggtg gcattgccct acccgccaca tgcaccctcc tcgagatata ctgcggtgaa 360  
 cgtggcccggt cctgagcaact gatcatactc agtgccgggt ggctcgcacc cttcctagtc 420  
 tttcttttgg gtg 433

<210> 6957  
 <211> 385

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-G9  
 <400> 6957

cccggtcga ccggaaggt taaaccttat taccaagaaa aattgaaaag gaaaaaattg 60  
 aaaagggcaa atctgaaccg aagattggca tccaagaact ccccttgcc aacttcaaga 120  
 aaatgttaaa tatcaggacc agcaggggaa aattaggagg tcatccacaa tggatctcct 180  
 ttgtgtctca aaccagcttc tccgtgtcct tggttattta cttgaacgaa actgaaactg 240  
 aaaactgtga ggatcgaact tcgatgtcct tagagctact ctgttttaac cttgggtttac 300  
 catctcttct tctttcactg tatgctttgt ttttcgcgt caaagatgcg attgggccaa 360  
 cgcttctagt cctcangcaa gacat 385

<210> 6958  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-H1  
 <400> 6958

ggtccagaaa tcccgggccg acggggagca caagaaggcg gaggagcaca agaagaagga 60  
 cggggagcac aagaaggacg gcgagcacia ggagggcatg atggagaaga tcaaggacaa 120  
 gatcagcggc gacggccacg gcgacggcaa gaaggacggc gaccacaagg agaagaagga 180  
 caagaagaag aagaaggaca agaagcacgg cgagggccac aaggacgacg acggccacgg 240  
 cagcagcagc agcgacagcg acagcgactg agccagctcc ggccgcgctc cggcagcagc 300  
 gtgcagtgtg ggcgagatcg atgaacgctt gggagaagtg tggcatacat atatgttgca 360  
 gggtttgag cgtgtggtag catatgtatg taatgcgtga catgtctcat ggatcntgtg 420  
 atgtataata attagccggc tgcactgca 449

<210> 6959  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum



<223> unsure at all n locations  
 <223> Clone ID: LIB104-012-Q1-E1-H10

<400> 6959

cgggtcgata gtggatccta catattctac gaagatcttt atcgggtcaaa ctgcataaca 60  
 acatacgtca ttccctttgt catcgggtatg ttacttgccc gagattcgat cgtcgggtatc 120  
 atcataccta gttcaatctc gttatcggca agtctctttg ctctgtccgt aacgcatcat 180  
 cccgcaacta actcattatt cacattgctt gcaaggctta tagtgatgtg tattaccgag 240  
 agggcccaga gatacctatc cgatactcgg agtgacaaat cctaattctcg atctatgccca 300  
 acccaacaaa caccttcgga gacacctgta gagcgtcntt ataaatcacc gggttacgttg 360  
 tgacgtttga tagcacacaa ggtgttcccc cggatttcga gagttgcata atctcatagt 420  
 cagaggaata tg 432

<210> 6960  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-H11

<400> 6960

gggtcgacgg ggcagttggt gcccctctcg gagcagcagc tgggtggactg tgaccaatac 60  
 gacggcgggt gcaaccgcgg gtcctttcac agggcctaca attggattgt ggagaatggc 120  
 ggccttacca cggcagcgga ttaccatac acggcgggtga ggggcgcctg caaccgcgcc 180  
 aagtccgcc atcacaccgt caagatcctt ggcggcggcg tgatcccgcc caggaacgag 240  
 cccgaaatgc aggtcgccgt ctccgggcag cccatcggcg tggctatcga ggtcggcagc 300  
 ggcattgcagt tctacaagag cggcgtctac tcgggcccct gcgggacaaa tcttgctcac 360  
 gccgtcacca tcgtcggcta cggcgtcgat gccctactg gggc 404

<210> 6961  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-H2

<400> 6961

gaccggaagg aagaggtatg gaccgagatc ctccaggaga acgagcttgt cacgaccgag 60  
ctcgaggaga tcaccagttg ggggttcgtc gatgccatgt tcaatatcga cattgagcat 120  
ttggacaaca tgaacaagag caaggagcat gggttcctcg gcttccgtaa caccgtcaac 180  
tccttcaacg cttggatcga taagatgaag gcttccaagg ttgttccgtg atgctcttat 240  
tgtctagtat ctattgttgt ctacagcata tgctactgca tcccatttta tcaactcattt 300  
ataaatttac ttctgaaatt agttacatcc catcatttgt gccaaatgtt gtaatctaga 360  
ataagccaga accaaataaa gctcccaagt tgtaaatcga ttatctgtgc t 411

<210> 6962

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-H4

<400> 6962

gacctccgca gacactgtgg acctcaagcc aacgaacaac gacactggcg aactcatcat 60  
gcaccttgag tgggttaacc tcccccaag catgtcacag tgaattgatt tgacttgcaa 120  
agggagggca gctaattgtc gccttttgtg cttctaattgt tgctcctcg atatatgatc 180  
tatgaagata attaagcgat gcctagctca ttcgttacat aacaccacc gtaatgattt 240  
gtggattaca acagcatggt gagtatagaa taggagcatc ttcgtgatga gatccgcaca 300  
tcatcacagt gggtgctacg taatgcatgt gatatactta tgctgctggg ggtaatgcat 360  
gctttcagtt ttggttctgc atatattgta t 391

<210> 6963

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-012-Q1-E1-H6

<400> 6963

acggggtaca gatacggcgg cattatagat actcggatga acgcaaggga aaactggcag 60  
gcttttccga tccagtgaat tagtgctggc tgccaaacgt ttgaaagagt agattatttt 120



gccctaaaag ttaacataaa agatatagtg ttgggtagac atcaaagttt agtcaaata 360  
 acaaacaata ggacatagta acattttcag attaatacaa aaacag 406

<210> 6966  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-A11  
 <400> 6966

gtcgacgtcg tcaagaaggg ttacgtcga atccacagct cagggttcag ggacttcctg 60  
 ctcaagccag agctgctccg tgcgattcag gactgtgggt ttgagcatcc ttccgaagtg 120  
 caacatgaat gcatccctca agccattctc ggaatggatg ttatctgtca agcaaatct 180  
 gggatgggca agactgctgt ttttgcctc tcaactctcc agcagattga tccggttgct 240  
 gggcaagtag ctgcacttgt gttatgccat acacgagagt tagcatacca gatttgcaat 300  
 gaatttgaga ggtttagcaa gtacctgtca gaaacaaaag ttgctgtctt ctatggtggc 360  
 gttcacataa aaaaaca 377

<210> 6967  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-A9  
 <400> 6967

aatccttaac cttttaaaaa agctgttaat aacaaacgcc tccgcctaata ccccaaagg 60  
 caatcaaacg ggccggttgg attaccatgt ccgttttgat gaaaacccca ataagaggac 120  
 acgatctctg ctttgacaag acgtgcaaat aaaactgcat cttgaaacat ggagcaagag 180  
 gcttaaaaat agttcgaaat aatgaccggg cagcgacgtg atgtgacgct acaaaagttg 240  
 tcagtagatt ggactcaaga aatattatac tctctgcgga tatatgtggg acttggtttg 300  
 cagagccgga cacgtttttt atgttcgaag gctattttgg ag 342

<210> 6968  
 <211> 367

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-B11  
 <400> 6968

gacggggaca ttcagagaga tactgccatg catcattctg ccgttacatt tattatgaca 60  
 cgcttcatca catgtcatat tgctttgcat gatcatgtag atgacatcgt atgtgtggca 120  
 aagccacctt tcacaattca ttcatacatg tcagtcttga ttcattgcac atcccggtag 180  
 accgctggag gcattcatat agagtcatat tttgtgctaa atagttagtt gtaattctag 240  
 agttgtaagt agataaaagt gtgatgatca tcattattag agcattgtcc cagtgcagca 300  
 aagatgatgg agactatgat tctcccacaa gtcgggatga gactccgggt gaaaaagcat 360  
 gtgttta 367

<210> 6969  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-B5  
 <400> 6969

acggtcctag aatcncgggt cgacggggcg tgcaaaaact ccggcgacgg cgacatcgtg 60  
 gtttagggag agtatgtag gataaaccac gtatatgggt gtcgtgcgcg cagccgtggc 120  
 tggctagcta catgcgtggc cgggtgatct ttcgtgtgcg catgctagtt ggtagttgg 180  
 ctttgtggcc ggtgcgctgt gtgtgcatgc acgatgctat gcaagtttgt tagtcacgga 240  
 tagactcccg ggaggtgagc cagatgtgag tggccgggtg tgacggccaa ctaagtgggc 300  
 gtgcatgcaa gtcattggtgt gcgtgcgtgt gtgtaa 336

<210> 6970  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-B9  
 <400> 6970

ccccgagcac gcttgtacgt gatacctttc aacttgccaa agagaaagct ccgatgcatta 60  
 tcttcataga tgaaatcgat gccattggta caaagcgttt cgacaggtac aaatcttttt 120  
 ctgattccag ttcattgtatt tctgcacttt ctcatgtatt tgctcaaata acattctttg 180  
 gttgagagta cagtgaagtc agcggagaca gggaagtgcaggactatg ttggagttgc 240  
 tcaatcaact tgacggattc agtagcgatg aacgtattaa ggtgagtgtc tttatccatt 300  
 ctaaggacta atcactactgg tcttaaaaat cgttctcaaa gaaacagtaa caaccatacc 360  
 tttctatttt ttcaggtg 378

<210> 6971  
 <211> 62  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-C2  
 <400> 6971

gactcccgagg cgcaggggga tctccacagt gaggccgacc aggcctctgca tgcgacccat 60  
 ac 62

<210> 6972  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-C4  
 <400> 6972

gacgggtgatg ctcatgttgt cgttgacatg tcgtctatgt gcattggcat gagattcgtg 60  
 aacagccaat gcatgggtcg ctactggacg tcattcatag ctcttggcag agtcgcttcc 120  
 caggcgagtg ttgccagatt cgacgggcat ttttgagatc caggaccaac ctattgggtg 180  
 tatttgagga ggaccttggc aagccgggag gcatactcat ccagacagtg acgagagatg 240  
 acatctgcgg tgttcatctc ggagcacaag cctgcagaga taaagccatg ggaggagcat 300  
 ggaggccaga tcaagctcat agccgatgac cagaacactc cgggattctt taagtgcc 359

<210> 6973  
 <211> 376  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-D12

<400>       6973

```

gggcatcatg aaacagggga ctgcggcggc gagtggggcg tttaccgggg gaggcgatgt   60
tcgtgctggc gcaggcgaga ggaagatctc cagcctaccg gcgtacctcg ccacggccgt   120
ggagggctgc cacatcacgg gcgacatcgt gcggcgcttc gcggagatgg agctctcgcc   180
gctgctccgt tggctgctgg gcttcagagg gtccaggagg cgcctcctca ccgacgacct   240
cttcatcgcc aagctcgcca tggagatggg cgtcagcatg atcgccaaga ccgctgccga   300
gtacgagaag agacgggaga acttcgtcaa agaaattgac atcatcatcc ctcatgtggg   360
tgaggtcgtc attcaa                                     376

```

<210>       6974

<211>       392

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-D9

<400>       6974

```

acgggggatg ccacgggatg catccctctt ttcgtcttcg tccaacgggt aacttactcc   60
gaactaaaat tttaatcaca acttatatgt ttttgcttgg agcgtaattt tatttccttt   120
attttgcttg ctgcttgagt aaaataccaa gatataaatt tattaaatgc tagagagtct   180
tcacatagtt gcataattgt tcgattactc attgatctcc acttatatct ttcagagtag   240
tttgtcattt gctttagtgc ttcaattata tccttttaga gcatggcggt ggttttattt   300
tgaagaaata gatgaactct cgtgcttcac ttatattatt ttgagagtct tttagaacaa   360
catggttaatt ttcttttagg cataataaaa ac                                     392

```

<210>       6975

<211>       349

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-E10

<400>       6975

tggaaatata acacttagag caaaagaaca agtaatagtt acaactatat gcatatttgg 60  
 gtggtggagg ctctacggtt aatatgggtt tgcgaaaagc catttttttt cctacaataa 120  
 aggaatatat tttgtttaac tattatgtta cttgataaac aatgagaagg ttcctccgac 180  
 tcaatcccaa ttaagcagta ttaataaacc aacaaactaa ttacagtgt tgagatcaga 240  
 ataataattc aagaaccaga tactcaagat gtcgataacc ggggacacga ctaaccatga 300  
 ctactttgta cactctgtaa aggtttgaac acttttcccc ataagactc 349

<210> 6976  
 <211> 163  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-013-Q1-E1-E6

<400> 6976  
 aatcttagac gcctctcact tcatggaacc atccacacac ctagttcggc ctattccctc 60  
 gcttcacac ggatgctcct cagttcggcc gatgagataa tgaataagcc gatgtgcttt 120  
 ggtgtaactc caacttgtgg aggatcataa cgctcaaaac tta 163

<210> 6977  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-E9

<400> 6977  
 tagccgtcca gaattcaagg gtcgacggga tggcaatatgc tggcaatata acacttagag 60  
 canaagaaca agtaatagtt acaactatat gcatatttgg gtggtggagg ctctacggtt 120  
 aatatgggtt tgcgaaaagc catttttttt cctacaataa aggaatatat tttgtttaac 180  
 tattatgtta gttgataaac aatgagaagg ttcctccgac tcaatcccaa ttaagcagta 240  
 ttaataaacc aacaaactaa tttagagtgt tgagatcaga ataataattc aagaaccaga 300  
 tactcaagat gtccataacc ggggacacga ctaaccatga ttagtttgta cactctgtag 360  
 aggtttgagc acttttcccc acaagactcg atctcctccg ttggatttct cacacta 417



<210> 6978  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-013-Q1-E1-F9

<400> 6978

acgggggatga gtagagcatc ggagacggct tcgtcttgag tcccgtagac cgggccatgt 60  
 cncatgtcct actctacctc gccggcgacc ggagcaatag tttgagggcc gcagccggcc 120  
 gctgtacatg ggcacgggtg agccggacga gcttcactta gattaggttt catgttgcac 180  
 gtaataatat gtatttggtg ttttgaaatt atgtttgtgg ttgtggaatc attttttata 240  
 agatgtccga tcaatatcca cggacgcacc gcgggtgggg gccggatttt ggtgtttgtg 300  
 gttgtacatg ctttaagtgt gcatgcaata cttgatatag tggagacata gtcagatatt 360  
 tgtcaggaag tgtcagctgt atatagaaat gcattgcaca aacgaatcct ttcccacctt 420

<210> 6979  
 <211> 287  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-G10

<400> 6979

gcaacgctac cataactcat gccaaagagc tgctgcatgt tactcggttg attttcttat 60  
 atgttgcgtc catgtcatgt ttgcacacat actgaacacc attttctgta aactgttcga 120  
 gtcctatgtt gaactgagaa tgttttgcct gttttggttg tgatcaaaaa ctatccagat 180  
 tctagtatgt gttgttccac ctacatcacc gtcacgttcg gcaaggcctt ctggattaat 240  
 gataaagtga tcagctcatc accggagaaa aaatcggccg ccctaaa 287

<210> 6980  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-013-Q1-E1-G11  
  
 <400> 6980

ctcacggctcg acgggaaact taacatagac tcggttttacg gtgagtggca tgccgagcga 60  
 ccgtgtgggg tcgagccgtg gaggaagggt agacacgaac acgacagacg tgatttaaata 120  
 gttgggttttg ctcgatggcg cgatccaaca aaatgaaacg ttggttttctc tccatttcca 180  
 ttttttctac ggaaaaacgg aaactatcca ctccattttc attcctattc caaggttgcc 240  
 ccgttacaac attccatcaa atacaaagga aaactaacca ctacaagaaa tatgtcaact 300  
 tgtgaccttg actattgggc actgaaagggt cattgttttt catttgcgac ctttttggtta 360  
 ccaaaaatag aagggtcaaaa g 381

<210> 6981  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-G12  
 <400> 6981

acgggcaact caacgtagaa tcggttttgcg gtgagtggca tgccgagcga ccgtgtgggg 60  
 tcgagccgtg gaggaggggt agacacgaac acgacagacg tgatttaaata gttgggttttg 120  
 ctcgatggcg cgatccaaca aaatgaaacg ttggttttctc tccatttcca ttttttctac 180  
 ggaaaaacgg aaactatcca ctccattttc attcctattc caaggttgcc ccgttacaac 240  
 attccatcaa atacaaagga aaactaacca ctacaagaaa tatgtcaact tgtgaccttg 300  
 actattgggc actgaaagggt cattgttttt catttgcgac ctttttggtta ccaaaaatag 360  
 aatgtcaaaa g 371

<210> 6982  
 <211> 273  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-013-Q1-E1-G9  
 <400> 6982

tcacggtcga ccgagcggga tacctcacat acggcggata ctcgagcatg gttgtggtgc 60  
 acgagcgctt cgtggtccag ttcccggacg ccaagccgct tgacaaaggc gcgcccctgc 120  
 tgtgcaccgg caacaccggt gtacaacccc atcaagtacc acgggcgtaa cgccccggga 180

atgcactcgg cgtgctgagc ctaggctggc tcagtcacat caccgtcaag ttcggcaagg 240  
ccttcgggat taatgtgaca gtgatcagct cat 273

<210> 6983  
<211> 316  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-H10  
  
<400> 6983

gtcttccaca agtacttcag gtataatgtg ctgcgttctt gcaaacaatg atagatgcac 60  
tgaggagaac ggagccatat ctatcagctc atcgcccgat ttagaccatc aatccgttcg 120  
gggtcgacac ctatctcaac agcaaacga cgctgtatat gggaatgacc ttcactcgct 180  
cccaagatta cgcgctgcgc ctaagccggc ccatgaacat cagctttagt gcggaatccc 240  
cgcatataaa actacacatc tgattcgata tgatcatcct gtgtccatag attcacccat 300  
gatcgttgat gcaaaa 316

<210> 6984  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-013-Q1-E1-H12  
  
<400> 6984

cggggatcta tactcgcttt tatgcctagc taggagcggt aaacgatagt gctagtggg 60  
aggcaacca attttatttg tgtttttttg tttttgttct tgtttagtaa taaatcttgc 120  
gtctaccttc tgtttagatg tgtttttatg ttttaattag tgtttgtgcc aagtagaacc 180  
tataggataa cctatggtga tagttaattt gattctgcgg aaaaacagaa actttgcgcg 240  
cacgaaaata attttgtaa ttcacacaaa cgagcttttt cgttgattct tttttctgta 300  
gatcaataga caaattgctc aggatttcct attttggtag gatttttaaaa gttccagaag 360  
tattcgaggg ttacagattg ctac 384

<210> 6985  
<211> 397  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-013-Q1-E1-H9

<400>       6985

```
attcacggtc gacgggatat tcaataattg ccaaaagcct aagctttggg gatgcccccg   60
gggaaaggca tccccctcct ttccgtcctt ccgttcaatt gggtaaactt taacttgga   120
gctatatttt taatcgccac aatataagtg ctttgcttgg agcgtcatgt atgatattag   180
tatttgcttt ttagttttcc acaatcatcc ttgctgtaca caccttttgg gagaagccta   240
cttgattaaa tttattagaa tactctatgt gcttcactta tatcttttga gctagatagt   300
ttttgctcta gtgcttcaact tatatctttt agagcacggc gatggcttaa tttgtagaaa   360
ttgctagtct ctcatgcttc acttatatta ttttgag                               397
```

<210>       6986

<211>       400

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-014-Q1-E1-A10

<400>       6986

```
gtaccgtacg aaaattcgcc ggtcgacggg gtccaggatt gacaggaagc tgctggtcta   60
tccaagatg ctgttcgtca gatccaagat tggggagggc gccacggca aggtctacaa   120
gggcaagtat ggtgatcaga ttgtagccat aagagttctc aacagtggcg gtacccccga   180
acaaaaagta acacttgaag atcgtttcat ccgagaagta aatatgatgt gtaaagtga   240
acatgataat cttgtcaagt tcattggagc ctgcaaggaa ccattgatgg tgattgtgag   300
tgagctgcta ccagggatgt ctctgaaaaa ttacttgaac agcatccggc ccagccaact   360
agatatgcat actgcattat gctatgcact caacatagct                               400
```

<210>       6987

<211>       412

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-014-Q1-E1-A12

<400>       6987

ttcgccgggtc gacgggtgat ttcagagaaa accggagtgc cggagggggtt accggaaccc 60  
 cgcgggggaag tattgggcct tagtgggcct taggggagag agagggcagc atcccaggag 120  
 gtgcccccca aggggagtct gaattggact aggggagggg ggcgcggccc ctcttttctt 180  
 ctccctcttc ctctctttct ttcccccttc ccccttccta gtaggactag gaaaggctga 240  
 atcctactcc tactaggagg aggattcctc ctctccttgg gcgcaccaag ggctgaccgg 300  
 cctccccctt tgctccttta tatacagggg cagggggcac cctagataac acaaattgat 360  
 tgttccaagc cgtgtgcggt gccccctcc accatattct acctcgttca ta 412

<210> 6988  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-014-Q1-E1-A2  
 <400> 6988

cgggtcgacc ggggtactaca agcgagaccg aagtctctct aaaaaaacat aaaataggca 60  
 aacttaatta caaatcttac caagcaagga acttaacatc agaacctaac aacaatatcc 120  
 accaattatc aacaaaggaa tgggtgggggt taaactgcag caaccaacct ttaacccggt 180  
 ggctaaccaa aactacgact gcaagcaact cttttgaggt ggcgcacacg agtccacata 240  
 ttcaccatat caatacacca ctatggatcc gctcccgctt ccctacgaga acgccatcca 300  
 tagcactcac gcttatcttg tgcaatttaa aagtatccac tttcacttgt ctatgaactg 360  
 tacaagcaac ccagaagtcc ttttccgagg acacggctat tcgaatagat gatgttaacc 420  
 ctgcangggg gta 433

<210> 6989  
 <211> 218  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-A3  
 <400> 6989

acagggtcca tctacgttat tctacacgat tactctatag atcaatcact cctaattcac 60  
 tgcgtattaa atcaagtacg tactacggta tttttaactg aagttaaaag gttggttcct 120

gttttaaggg tgcagatgta ctataacacg taagtcttac tatccaaatg cctcaccata 180  
 ctcttttgag gtggcgacaca cgaatcaacg gccgcacc 218

<210> 6990  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-A4  
 <400> 6990

cgggctcgacg gggaagccaa accacctcca aatggcaacc ccccatcc gaagaccaag 60  
 ctcccaatcc ggtcccaatg attgcctcca aaaacctcca aaaaaccccc ggcccccccc 120  
 aatggcgccc cccttcttct caacccccctt caagccctac gtctaccaga gccaacaggg 180  
 atctgtgacg gcgtttcaga tatccggtgg ggatgtgcag gtctgcacg tgatggtgaa 240  
 gtcgcaggac aagttgactg cgaaaccag tacaatgtgt tacatgtccg ggaacattca 300  
 gatggacaac aattacttgc ctgaaaacga tggaaggcgt gtggcagtgg atattttgga 360  
 aaaagcataa ccagcactgt tttcttcaat cctggccctg atgatggata tgtggggatt 420  
 tctgcgccat tt 432

<210> 6991  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-A6  
 <400> 6991

attcgcggggt cgacgggtgg agcgagaagc tgaagcggag ctccgccggc gagcagaagt 60  
 gggggctgtt catcgcgacc aagtgatctg gccgctgagc agcgacgcca tggacgcgat 120  
 gattcgggag cagagcagct tctgttaaga aataaataaa gaggatcggg gctcgacaat 180  
 gttgtggcgg tgtgttgggt gtgattgttt gtttgttgca gtggctgcat tcaactggctg 240  
 ggcaccagga tctataagat aatgtgtacg tacgtacgta ctgtattcct gaacttgtac 300  
 tgtgacgagc gagactcgct ttgtaacgtg ctattctgtt gaaaaaaatc atgcgaacta 360  
 aaaaaaaaaa agcggcgg 378

<210> 6992  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-A7  
  
 <400> 6992

```

aggtgcacgt ggccaacggc ggtgggctca ccatccagca ccagaacaac gtcatcatca   60
acaacctcca cgtgcacggc atcgtacaca cgtcgggcgg caacgtgtcg atgacggcaa  120
cccactccac gatccgtacc cgcgccgacg gcgacggcgt ctccatcttc aacgccacca  180
aagtgtgggt ggaccacctg tccatggata attgcgagga cggcatgata gacgtgggtg  240
ccatgtccac ggccgtcacc gtctccaaca cccacctggc ccaccacaac gacgtgatgt  300
tcttcggcgc caccgatggg aaggaggagg acaaggatgat gcatgtcacc gtcgccttca  360
acca                                                                    364
    
```

<210> 6993  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-A8  
  
 <400> 6993

```

attcgccggt cgacggggac agtgacggcg acgacgacga gacggactct atgtgatgca   60
gaggacgtcg gcgtgaggtg gaggtcggcg cgatgccgct ggtggccggt tgcgggtgtga  120
tgccgcaaga tgatgatggt gtggtggtcg gcgtcgcgag gatgtcatcc atgacaagat  180
gggccatggt gaccggcgct gcgccggtgt cggctgtggc acaacggact ccatgcgaga  240
tggagcccga ctgtgcaaga agaaagatgg tggccatgca gtgccactat gtgaagatgg  300
cgggtgtgaag ctgccacaag aagagtcggt gcgatgccga cgatggtggt gtgatgccat  360
cgatcatcatg gaaagttggt gtgaagccaa caaagctgc ggtgcgatgc cac          413
    
```

<210> 6994  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-B1

<400> 6994

ggtcgaccgg gaaggtgaaa ccatagagag atgtgtatatt ttaattgaga tgttttcagg 60  
agtacctttg tgaagctgat atatctttct tttacaagat atgttgact tgcttcatct 120  
acataggctg tctggaatgc catgaggccg ggattgggtg atgaaatctt caaagctatt 180  
atattgggtct caagaaactt gcaatacatc aatattttta atttttttgc tgacaccaca 240  
gctaccacct cttcactaaa tgacagatgt tgccagcaac tgcacatgga aggatttaat 300  
gttatattat gtctactaat caataacgag ggagatcaaa ttactgctct caaatattca 360  
cctgattgat tttgaaaaga ggggttaaaaa tgggtgttatg aatga 405

<210> 6995

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-B10

<400> 6995

attcgccggg cgacgggggt gattacaagt atgacgggtg caacaacgag agcaaagagc 60  
gtaagggagg gcatggcatc ccaaagggtt ccatgggtccc acttgtcttc ctcatattct 120  
atgaagtctc aggaggtccc ttggtggattg aggatagtgt caaggctgct ggaccactcc 180  
tggcaattgt ggggtttctt ctgtttgcgc tcatatggag tattccagaa gtcctaataca 240  
ctgctgagat ggttactatg tttcctgaga atggtggcta tgtcgtctgg gtctcttcag 300  
ctcttggggc cttttggggg tttcagcaag gctgggcaaa gtggctcagc ggtgtcatag 360  
ataatgctct ctatccagtc ctttttcttg actatgtcaa gtccagtgtc ccagctctcg 420  
ggggtgggct 430

<210> 6996

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-B11

<400> 6996



gacgggtctg caaaatttag atccgtatgt attttgcaaa tctctatgtc tccctccttg 60  
 acttgatcgc ggatggaatt gaagcgtctc ttgatgtgtt tggttctctt gtgaaatctg 120  
 gattccttcg ccaaggctat tgctccatta ttgtcacaaa agattttgat tggacccgat 180  
 gcactaggta ttacgcctag atcggatatg aactccttca tttgcttctt ccgaagcagc 240  
 tatgtactcc gcttcacacg tagatcccg cagcagcgtc tgcttggaa tgcaccaact 300  
 gacagctcca ccattcaata taaatatgta tccggtttgt gacttacagt catccgaatc 360  
 ggtgtcaaag cttgcatcga cgtaaccatt tacgacaaga 400

<210> 6997  
 <211> 334  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-B2  
 <400> 6997

gatgtgtatt tttaattgag atgttttcaa gagtaacttt gtgaagctga tatatctttc 60  
 ttttaaaga tatgttgac ttgcttcac tgcataaggct gtctggaatg ccacgacgcc 120  
 gggattggtg tatgaaatct tcacagctat tatattggtc tcaataaact tgcaatacat 180  
 caatattttt aatttttttg ctgataccag agctaccacc tcttcactaa atgacatagg 240  
 ttgccagcaa ctgcacatgg aatgatttaa tgttatatta tgtctactat tcaataacga 300  
 gggagattat attactgctc tcaaatattc acct 334

<210> 6998  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-B3  
 <400> 6998

catgagatat atacatgcta gaaactttcg tgtgcagcca caagctatta tgggctccta 60  
 gcatagttga caaagtcttg caaactctta cagtggtaga ctagcagatg taggggatgt 120  
 aggttggtac agtctaccgg ttcgtaagggt gctagcgctt ctgaaagact atgtctcgat 180  
 catccgtttc tcaaacacca tgcagtgcga gaaaaccaac ggaggagggtc gagtcttgtg 240

gggaaaagtg cgcaaacctc tgcagagtgc atacactaat catggttagc cgagtcctcg 300  
 gttatggaca tattgagtat ctagtacctg gattatcatg tgaatctcaa catgttactc 360  
 taaaattaat tttgttggg 379

<210> 6999  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-B4  
 <400> 6999

catgataaaa tacatgctag atactttcgt gtgcagccac aagctattat gggctctagc 60  
 ataatttact aagtcgtgcg aactcttaca gtggtatact agcagatgta ggggaggtac 120  
 gttggtacag tcctatcggt cgtacggtgc tagcgcttct gaaagactat gtctcgatca 180  
 tccgtttctc atccaccatg cagtgcgaga aaaccaacgg atgatgtcga gtcttgtggg 240  
 gaaaagtgcg caaacctctg cacagtgcac acactaatca tggttagcgg agtcctcggg 300  
 tatcgacata ttgagtatct actacctgga ttatcatgta agtctc 346

<210> 7000  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-B5  
 <400> 7000

actggatata ttaacgggcg agccgttacg gtgccccggt ggccatcaac ggcactatc 60  
 acggattgct acctccttca gtgtcatgca gtggtaaaat accatatgct ggggatgtac 120  
 gttggcagag tctacacgtg cttaaggtgc taccgcctct gagcagacta tgtcacgatg 180  
 atccgtttct caaacaccat gcagtgcgag aacatcaact gacgaggtcg agtcttgtca 240  
 ggaatagtgc tcatacctct gcagcgtgta tacactaatc atggttaccg cagtcctcgg 300  
 ttatggacat attgagtatc taatacctgg attatcaagt taatcacaac atgttactct 360  
 aagaataatt ttggtggggt ctgtttaat 389

<210> 7001  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-B7  
  
 <400> 7001

gataatgcac cactcaggtg gagccatcac caccccaaga ctcacacgct tccaaagatc 60  
 atattgaacg ctctcaacct cgtgcacaag accaggggtgc acgatcaatc gcaagattgt 120  
 ggtgaacctc caaatgatgc ccacagtcac tttctcacc acgagaatct tagatataag 180  
 atgcaagctc aagatcagta tgaagctcaa gatggcgccc attattttca gattaaccct 240  
 cgtccgtcca cataccaaga cgacttgtcg cgtctaacca caaagattgc tttcaaactc 300  
 aaaacgaagg tcgattcagt ctaaatcgaa gtggtagcct aagactcggg gtaagtactc 360  
 gta 363

<210> 7002  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-B9  
  
 <400> 7002

gaggggacaa tgcaccactc atctggagcc atcaccaccc caagaccac acgcttccga 60  
 agaacaaagt gaaggctctc aacctcgtga acaagaccag gggcaagatc aatctcaaga 120  
 tgggtggtgaa cctccaaatg atgcccaagg tcaagttctc cccctcgagc aagttcaaga 180  
 ccatgagcaa gctcaagatc aagaacaagc tcaagacggc gctcaagata atcaagttaa 240  
 ccctcctcct tccacatccg aagaggaatt agagcgtcgt gccgcgaaga ttgcttccaa 300  
 gctcaccacc aaaggccatc tcatggagaa tgtggttgga agcctaagaa aggggggtaat 360  
 cactcgtaga caattaacaa actattgtga acatcacgcc tttgtcccc 409

<210> 7003  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-C1

<400> 7003

gggtcggcgg ggatgtcctg tgacggatag gtctcgttgt aggccagccc ttcgatctcc 60  
agaaggcaag cctagtgtcc tcctctcaac cttcaatgct gaccctagca gcaaccatga 120  
ttgatccttt gtacgctaaa ctgaagaaac ctctcaca gtttcatcat gcatgggagt 180  
cgaagatatt agatgaacat cacatcctgt atgcagcaac ggatgcctac ctttgtttaa 240  
atatctacaa gggttggatg aagaagcgga gcccggtgtc tagttcaagc aaagaagtgt 300  
cggcgaagag gaagaggaag agggattagg tcgaagtcca ggacgtggac tcggactccg 360  
aataggtggg aattccgtcg ctcatgct 388

<210> 7004

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C12

<400> 7004

ttcgccgtcg acggggggcaa caagtgggtc actgtgggtg tcatgctgcg cttcttcctc 60  
gtgtgcacga tcatgtgctg ggctgtgctg gtgaggaggg cgtccaagac cactctctga 120  
tccttccttc tttcccttgt ttttgtttgt cagcttcatt ggattggatc atatatacaa 180  
gccgcgttat ttgtttgctt ttgtcctgta gtttgccttt tgtttagatg tgttgagtaa 240  
caagtgcaat gcaagtttgc actcgtgtgt aaaatgcttg atttgggttc atgaatagaa 300  
aatttcaacc tgtcaataca gttcactcaa catatatgaa atc 343

<210> 7005

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-C2

<400> 7005

cgggtcgacg cctacctgca ttacatcctc ggcgacgagt acgagccgga gcacgtccgg 60  
gagcaagaac ttcacgggcc cggttcaagca ccaatggcca tccgcaacca tatccgcac 120  
acagtccttt ggagcacaat tgacatattt gcagcggacg tgtgatgagc agttttccat 180

ccaccgtgca aaagaccag agctgctcgg cggcatgac gatgaccac ctgaagagcc 240  
gccatcacag tgctcatcga gagcctgatg ccccgcaatg aatgggcaga ggacctccgc 300  
gattcagtca agacaaaggc agcctgcggc ttcattcattg cccgcaacgg ccattttcaac 360  
ctcgattccg atgatgtggt ggccaagatt gagcgcatcc tt 402

<210> 7006  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-014-Q1-E1-C4  
<400> 7006

cgggtcgacc ggggtttagg tgggctgcag gtgggctgag aagaggagtt gggccgagag 60  
gagagaagag aagagaagcc cggcggtagt ttcggagacc gaaacgtccg acaattaaac 120  
cggcaacagt gccgctatgt taaacggttg ggctatcaaa cgaactccga atgcgacgaa 180  
acttggcagg cggctctgtct acactataat aagaccacac gacaagttgc aacctattcc 240  
gagaacattt ttatgccact aataaaataa tattacggag gtgccgcggg cgcgtgcgag 300  
tgtagtcggg ctcagaacgg acaacggaga gaaccggcgg aacacgaacg gatgcaagtt 360  
ttgaaaaaca tgcagatgan atacagatga agtgcagatg atgaca 406

<210> 7007  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-014-Q1-E1-D1  
<400> 7007

ccgggtcgac cggccaggcc aacgctgtgt ggtggtggtg gaggaccagc atggcggcac 60  
cctgaagacg ctgctgttcc agcaccggga caagaagctg ccttacaaga agtggttcca 120  
gctggcgctg gacatggcga gagggctgag ctacctgcac tcgcagaaga tcgtgcaccg 180  
ggacgtaaag gcggaagaaca tgctgctgga caggaagaag tcggtgaaga tcgcggactt 240  
tggggtggcc cgtgtggagg cgcaggacga cgacaacatg acggggcaga cgggcacgct 300

ggggtacatg gcccccgagg tgctggangg gcngccgtac gaacacaagt gcgacgtgta 360  
cagcttcggc gtcctgctgt gggagacgta ctgctg 396

<210> 7008  
<211> 283  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-D11  
  
<400> 7008

acgatgctaa ctataacgac acgtccgtca tctccctcca ccccgacacc atattagagg 60  
ctccagctct tcttcggcga gaccttcctt ctcaacggta acacgacgaa tgactccatc 120  
tgcattgttc ttgtgatta catctgtgat gagcctaaag tcataattat gagatctgtc 180  
aagagttaac tttagattga aagatgtgtc atgtgggtgtc tgttcatcac tacgcctagt 240  
ttcaatacat tacacgagtg tatataactta cttttaacaa tac 283

<210> 7009  
<211> 157  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-D2  
  
<400> 7009

acttcaatcg cagccccttc tccagctctg ttcttatgcg gcaataactt cgctggacga 60  
ggataattcc ttcacatca ccgactttct gttaatggtt ttgttcggac tcgttaacta 120  
cggcattaca gtgcataccg gctcccggtg atacatg 157

<210> 7010  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-014-Q1-E1-D9  
  
<400> 7010

gacgggagaa gtaagacttc agacgccgcc gcaaggcttg cacaccacaa gatccaagat 60  
gtcaatatga ctgtactcca gtttcaacac gtcacatcac attgtcattg ccagggcttt 120

ccaaaaagcc acattagttt gataggccaa atgcagacaa aatacatTTT gatatacatg 180  
 tgcacaggct catgtacatc caggagttag tagagtgtt cggacaactt acagcctgct 240  
 cactcaccta gattaccctc aaggcgatca tgacgctggt cgatgcactt gagctgttgc 300  
 aggccaccaa aagggaacc gatggcgta acggagtcgg caatctattg gataaagtcc 360  
 taaatgcgat ttaatgcgac gtca 384

<210> 7011  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-E3  
 <400> 7011

gggtgattatc catagactat acgggcacaa tagatgtaca tctacatcat ccagggaaca 60  
 caggggcaca tcgtatctta aagggtacgg tggtaagat gagttcatac gtacgaattc 120  
 gggttgatgta atctctcagc aatctgctga aaagcattca agtacgcaac attttatata 180  
 gagattgcta tttgactggt ccgcttagtc acagtgtgct ctgtaaatac attagctcat 240  
 cagacactgt ttaccgtcta cacatagcga acatcagatt ctaatctcaa gtaatgagtg 300  
 cgttgtttac ttacgctcgc agcttcatat cctcgaactg attcaaacgc cgaatttgct 360

<210> 7012  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-E6  
 <400> 7012

agacgggaca tcctccgcct ctagtcatgt gagtatcact atttcctgag ctgctcgagt 60  
 gagattttac attctgttcg tggatttata tcgtagtctg ttcttcatac ctagaatcca 120  
 cgagaatacc aatcaaaaaga tggtacgggt agttcatccc atccgaatca atctgagcct 180  
 tgcataaact tttctgtaat agccttggtg atcttgcggt tgcactctacg tgttcaattg 240  
 ctggtcataa cgtctagtcc tctaaaattg ctacttctgt tcacatcttg tcacaccgta 300  
 actgcaccaa catcatctca cc 322

<210> 7013  
 <211> 327  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-F10

<400> 7013

ggtcgacggg aaaaagtagt gctaggggtt gagcgagatg gcgaggtgga agaggagata 60  
 atgaccaggt ggggagaggt atttataagg agcgcggtgt agtgaatta cgcaggtgcc 120  
 cctagcggtt cacatctgga tgacatgtgg aaagcatgca acttactgaa aattgagcca 180  
 atttcccccc ggccccctgt ttggttggaa ggtctttccg gcttcacggt ttttcaggaa 240  
 aaagggataa taccattaaa attggtttta atgggtgtacc cctaaatctt cacctaacag 300  
 ggacccatta aaaactttca actggtt 327

<210> 7014  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-F3

<400> 7014

cgacaccgaa gaggcgcaga gcgaatgcaa tggcgatggc gcggagcctg ggcagctgtc 60  
 ctgcgcagcc aaagtcgatt ccaagtgggt caagaggatc cttgcaaata ggcagtcggc 120  
 acaccggtca cgcgtgcgca agctgcagta catctcggag cttgagcgcg cgtctcgtcg 180  
 ctcaacatgg aggtgtccgc attgtaccgc cgtgtggcat tcctcgacca cgagcgctca 240  
 ctgctgaagc cggggaacac ccacctcaga tagagcattg cggcgctcac gcgggacatg 300  
 atcttcaaag at 312

<210> 7015  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-F4

<400> 7015



cgggatcatg ataacgagaa atatatatat aggataataa ggtggtgtat tgccgccatg 60  
 tccgttgagc tgatgtttgt ttcagctaga gaaatcgta cgcccgtca taatttttcg 120  
 acgctatgga aaataataac tactggtata tcaactctata tcaaaccggc ttgtgaaata 180  
 aatggttgcg ccccggtttt ttgtcgtaaa aaaaaaaaaac aaataaaatg gaaatatact 240  
 tttgcatca agtagatcaa aacttaagta gccgttggtg caatctcata gatcctgaat 300  
 cgatgtcgcc acaatatgtt atacaggacg cagtttgaaa ccttcat 347

<210> 7016  
 <211> 297  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-F5  
 <400> 7016

aattcgccag tgcagggga taccgaactg gacgtgaaga cggacattgc ttgtttat 60  
 gctgaatttg gttcactttt ggataagcca tacatcaggg aatcattcag catgaatacc 120  
 attgataagg gcgggagttt acctggcacc gcacagttgc cgtgtcaggc ggcgctccat 180  
 gggcgcgctt caaccgctag tattacacca catgtggttg catgttctct ttcacacaca 240  
 ttatgtggta ccagagcaca aaaactcaaa ggtaacacta tggaacaaac aactcaa 297

<210> 7017  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-F7  
 <400> 7017

gtacgatcca gaattcgccg gtcgacgggg atggacatag agcttatcac acccgatcat 60  
 cacttggtgt ctgggcacga cgaactttgg caacggtgca tactcgggga gaacaatttt 120  
 atcttgaaat ttagtgagag atcatcttat aatgctaccg tcaatcaaaa gcaaaataag 180  
 atgcacgtac gctactgtga ggtgttggtc ttctcttccc gccctcctct ttggtgtcct 240  
 gcttaattcc cctacacgta tgctactcta cccaacacg ttggacgaca agggcatctc 300  
 caccatatga tccatccatc ctccgtgcat gttgcctgcy ccattgatgc gttgagctac 360

gacgaactac ccttctctac gtacccttct gtatgtgtat gtgtgtaaca gtatggttgt 420

g 421

<210> 7018

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-F8

<400> 7018

tgtctggcag gatattgaca tgtgttgtgc gcggtgggca tattttcatc aggggtgtcgt 60

gtctcggaga atctggggat cctgaaatga aattggagat gaggcgctac cgggagcctc 120

ggttctacac caaggtgtat acaggttgcc aatcgtaagg tcatgatggg aactcctttg 180

agctttctct ggtatcttcc agatgcattg gagcttatgt gaattgcatg acgagccatt 240

gccacatatg ttggctgtgg gacaaggta tatgcacagt agatacaggc tttcatgaga 300

ttctgaaca ttgtgcatta cagatccact 330

<210> 7019

<211> 232

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-F9

<400> 7019

attcgccgtc gacgggcaat gatactcctg acctggcagt ccttcaccaa tgccatcgta 60

gcacaatcca atgccttgtc ccgccaccg tctcccctcc ttgttactct ccgggccacc 120

tatgtgcacc cagattttcc ttttctttct agcttcccgg ggtcttttgt gtctcccccg 180

gtggcggttt ggccgtcgca cctcgacgac attagccact gtgggatgaa tc 232

<210> 7020

<211> 332

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-014-Q1-E1-H10

<400> 7020

gggtcgacgg ggggtgggtcac tatgggtgcac ggaatcgggg cggtggcccc tcttattcga 60  
 caacgggtgga ctccatggtt gtgtgggaga ttcgaagtct ggatctcgag gtggtgatgg 120  
 cctttctgag gtangccgcg gtatgggaca tcccatccat cgatatatca ggttcaatgc 180  
 ggctcaatag gtgacacatg cgtctctttc ggagtcgtca ggcacttcct gtcgccgaca 240  
 ggtgaagcct caggcggatg ctacgcacga cgtctcatgc ggaggcatca agtcatgcct 300  
 gctnacagcg cgtgctgcat ggtgtttgtg at 332

<210> 7021

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-H11

<400> 7021

gacattcttg atcatcgtga ttcttataaa ctcttatatg ttctcttctc cgagggtgaca 60  
 atttgtttca cagccgctc gaggcagcac atttctagaa actatataga tatatatattg 120  
 attttgattt ctacagaaat tttcttgtaa attagactga gataaaatca tttgtttgca 180  
 ttctcgtcag aatatagttt tctccttttc ccatttttta tttttaaggc agactctcgg 240  
 ccgacgacgt ctctagtct gcacgatga ttttttggt agtacttcta caaatcctat 300  
 gtttcaaaaa gtttgctttg ccaagaggaa gtcacggata cgacattgag ctatgctcat 360  
 gacgtgttgc cgctggatgt aagacgaaca atacttcgac accgcca 408

<210> 7022

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-014-Q1-E1-H12

<400> 7022

ggatccggat gacggatgcg atcgaggagg cgaagctgag ctcgttccag caggagatcg 60  
 tgcagctggc ggcgggtgctg aacggcgacc accagctaag cagcctgcag gagaggatca 120  
 gggagaggat gaacgtgagg gaaggcacct cctacatgag gagcgccgtg cggcgcttct 180

tcgaggccgg catgtcggcc aagaggatgg gcctcgccga cgacgaccag atcgtcaaga 240  
 tgaggccctc ccttaccacc agaatgacct cctccctgc agatcaagat gatagtccgt 300  
 agagagcaac gatgcataca tacataggat gaagattgat gttggaatta ccaaaatctt 360  
 agtactacac atacatacat aga 383

<210> 7023  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-H2  
 <400> 7023

gctgcagata gacgacataa gtccactggg agcaactaga ttcacgatat cttcgatgcc 60  
 accgattccg acaataagct caacctgcac gacgaggatg aggctgaaga cgtgtcctag 120  
 ggccccact tggggtttgt caatccctac agcaagatga tgattcctgc tctcacataa 180  
 agtcctatcg cgatccctcc ctttgctctg gttgctgcga atatcagcct ggccggggagc 240  
 atcatccgca gcatgagggt cactcatgac attctccact tctgttccgg ccatgttgtg 300  
 acagcggaca tccacgttat tgacgt 326

<210> 7024  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-014-Q1-E1-H4  
 <400> 7024

acgggacagt ggtgaggtaa tatgcttcac acaaaccgga gcttctcaca acaagcatga 60  
 tgggttttcgg tagggaacgt cccacctttg aggacgaaac gatatccatt acctcttatt 120  
 getctcaaat tttttctcgt gtcaacattg aacaacatga gtgttgtgtg attttttatg 180  
 atttttcggg gtttgtttgg acatttttat gcattaagtg agttttcaat gcatttatgt 240  
 gcataattca aatttgaact acatgcgcac gctccagtgc atataaattc attgaaaaat 300  
 caaatctttg tccttgggtg catgcttaag tcccatgcaa gaaatgggaa tgaatttcaa 360  
 acaccatggc accgttgatt gccggcaaaa cagtgaatg cctgggtttt 410

<210> 7025  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-014-Q1-E1-H8  
  
 <400> 7025

gaatacctgc agcacgagaa ttcatggaa tgagcagtc gtagtcaag gcaatgccga 60  
 gtcttatttt taaaaagtc caggaagaca attgtacttc gtcaacatgt gccatttgct 120  
 tggaagacta cagtgttggg gaaaagataa ggggtgctgcc ttgtcgtcac aagttccatg 180  
 ctgcttgctg ggacctgtgg ctacatcat ggaggacatt ctgccctgta tgcaagcgag 240  
 atgcaaagtc tggaatgtca aatttccttc catcagagtc tacccttttg ctttcttctg 300  
 ctattccctt gccagctgaa tcgacagctt tgtcttctt tcgttcaatg gtagcagcat 360  
 ctctccaag gacaataagc cggcatcctt ca 392

<210> 7026  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-A2  
  
 <400> 7026

ccgggtcgac gggatgcagg agttcctcgt cgaattccgc gggccccaag aaagtctcta 60  
 ccaggagggt gtatggaagg ttcggttaga actgccgat gcgtatcctt acagggtccc 120  
 ctcgattggg ttctttaata agatatatca ccgaatgtc gatgaactgt ctggctccgt 180  
 ctgtttggat gtcattaacc agacatggag ccaatgttt gatcttgtca atgtgttcga 240  
 agtcttcctt ccacaacttc tattatatcc aaatccttct gatccattga acggagaagc 300  
 tgctgcactc ttgatgcgtg atcgccctgc ttatgagcaa aaagtgaag aattctgcga 360  
 gaaatatgcc aagccagagg atgcgggtat aacccagaa gataattcga gcgacgaaga 420  
 gctgagcg 428

<210> 7027  
 <211> 435  
 <212> DNA

```
<213>      Triticum aestivum
<223>      unsure at all n locations
<223>      Clone ID: LIB104-015-Q1-E1-A3
```

acgggcacac actccacgtc tactagcata acatggcata ataagcaaac gcggaagtaa 60  
ctcccaaagg tttgaaagta aacaggtaat aggtactacc tcaactactt cccatcccac 120  
aaattaatta gaatcctaata catgcaatgt gtgaggattt gatctaatagc aataaaactg 180  
ggtagtagaa aaggatatgat caaagtgtta cctgccttgc tgatgatccg ggaaacctag 240  
cgattcgaag taacaagcgg cgcacttcgg gtattctatc gcagacaaac aaacaagcat 300  
acaataagta ctcatctaata gcacgggtta aactcaaata agaggatcta aacagaaggt 360  
tcaacttaag aactccggtt ggcaaaaaga atcagaacga atggaacaac gagagtcaaa 420  
cggcg 425

<210> 7030  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-015-Q1-E1-A6  
<400> 7030

gacggggaag aaaacgaaga agaagacgaa gaagacgaag aagacgaaga agaagaagaa 60  
gaagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga agaagaagaa 120  
gaagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga agaagaagaa 180  
gaagaagaag aagaggaaga agaagaagaa gaagaagaag aagaagaaga agaagaagaa 240  
gaagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga agaagaagaa 300  
gaagaagaag aagaagaaga agatgaagaa gaagaagaag aagaagagga agaagaagat 360  
gaagaagaag aagatgatga t 381

<210> 7031  
<211> 147  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-A9  
<400> 7031

gacanacaca tgtcagggtg aaatgaaaac acagccgaca gatacagaaa gaactgcata 60

aattaagtat tcacttgata tcatcgatga acaaaanatt aaactctaata ggttgcccca 120  
aagtttaagc atctgaaaga ggatagt 147

<210> 7032  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-B1  
  
<400> 7032

cgggccgacc ggtgacgca cacaagctat tatgggctct agcatagttg agtaggttac 60  
atgatctctt gaagaggtgg gctagcagat gtaggggaaa gtaggtgtac cgggccatcc 120  
agagtaaaga gtgattgttc ctgaaagact gtgtctcggt catccgtttc tcaaacaatca 180  
tgcagtgcga gaatcaagcg gaggcgatcg agtcttgtgg ggagaaatgc gcaaacctct 240  
acagagtgtg caaactaatc atggttagcc gtgtccccgg ttatggacaa cttgagtatc 300  
tagtacctgg attatcattt gaatctcatc accatgttac ttt 343

<210> 7033  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-015-Q1-E1-B10  
  
<400> 7033

cggtaagaa taccggggcc gacggggagg ttgagaagct gattggcagg atagtgaagt 60  
ggctgaagcc cgggtgggcat attttcatca gggagtcctg cttccaccag tctggggatt 120  
ccaagaggaa agtgaaccgg acgcactacc gggagccaag gttttacacc aagggtgttta 180  
aggaatgcc ctcctatgac caagatggga attcctttga gctttctctg gtaacttcca 240  
agtgcattgg agcttatgtg aagagcaaga agaaccagaa ccagatatgt tggttatggg 300  
agaaggtcaa gtgcacagaa gacaaaggct ttcagagatt cctggacaat gtgcagtaca 360  
aatccacggg aatcctgcgt taagaccgct tgtttgggga gggttatgtc agcaccgggtg 420  
gattcgagac cacanaagaa tttgt 445



<210> 7034  
 <211> 182  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-B2  
  
 <400> 7034  
  
 cgggtcaagca aaccgggtcg gacggcaatg gaagatatag gtgtgatatg tcaagtagtg 60  
 gacagataag ccaaccactg gatgtggttt tcagggattt ttgcagtggg atttgtaggg 120  
 tactatgctg cgctgtgttt ggaatttgaa ataaaacgat gggagatgtg ccacgctcat 180  
 aa 182

<210> 7035  
 <211> 214  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-015-Q1-E1-B3  
  
 <400> 7035  
  
 gggccgacgg ggttcacaag tggcgggtccg taaaagacaa cgtttcaatt tgcgtacaag 60  
 gcgttcaaag ttccctggcc tcatgttatg aagcgcacaa gtcagaaat tccactgaat 120  
 gatttccagt ttacaatgaa ctggtaacga gttgcttggg gttacagata ggctactgga 180  
 cagacgacaa cattttgtgg aacttcatcg tgac 214

<210> 7036  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-015-Q1-E1-B4  
  
 <400> 7036  
  
 ccggtctagn aaatccgggc cgacggggat gaggatggtg acttcgcgga gggcgaagag 60  
 gaaatctcgg aaggagagga gtatgacaac cccaaggcca gtgacgcaa gaagaaacaa 120  
 ataggcgagg gtgaggagaa tggcgaggat gatgaggaag aacaagagga gcaggagggg 180  
 ggaggaggtg acgacgatga tgatgacgac gacaacgacg atgacaatga ggacgacgac 240

gatgatgacg atgatgtcgc tgctgaagac gatggagatg gagtagaaga ggaggatgat 300  
gacgatgagg aggaggagga cgatgaagac ttgctccagc cccgaagaa gaggaagaag 360  
tgaagccctt cgacgcggct gctttagtca acatgccacg agatgtgcct gtccttcac 419

<210> 7037  
<211> 293  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-015-Q1-E1-B8  
<400> 7037

cggttccatg gagttggtgg gttcggtaaa gtttaccagg gagagatcga tgggggcaca 60  
actaaggtgg ctatcaagcg tggcaacccc ttgtctgagc agggcataca tgagttccag 120  
actgaaattg aaatgctgtc aaagctccgc caccgccatc ttgtgtcgct gattgggttac 180  
tgcgaggaca agaatgagat gatcctggtc tatgaccaca tggcccatgg aactctgcgt 240  
gagcacctat acaagaccca gaatgcgccg cttagctgga ggcagcgttt gga 293

<210> 7038  
<211> 321  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-015-Q1-E1-C10  
<400> 7038

ggccatacag cgagctcgag gggatggggg tcaaccgtga gcttgtgttg gaggtcttct 60  
ttgcatgcaa cagggatgaa gaactggctg ccaattatct tttggatcat ggccatgagt 120  
ttgaggaaca acaatagatg ttagattggt cttgctgttg aaagacagaa gagtcagtga 180  
cagaagcatt tcagtttggt gtcgtttctta tatcttgctg ctgaatatca ctgctacttg 240  
ccattagtgc cttgttgctg actttcaatt tcttgatatcc tggaaatgct ttctaagtac 300  
ataatatcat atgcaaacct t 321

<210> 7039  
<211> 117  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-C2

<400> 7039

cgggtccagaa atccgggtcg acggggggcgg ttgtgcgac gcacgctccg agagcgacga 60

ggagagcggc gaggaggtgg acgagggcatg cgccgatgcg gccatcctgc tgaccaa 117

<210> 7040

<211> 379

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-015-Q1-E1-C9

<400> 7040

gggtcgacgg ggagcacaag gagggcatga tggagaagat caangacaag atcagcggcg 60

acggccacgg cgacggcaag aaggacggcg agcacaagga gaagaaggac aagaagaaga 120

agaaggacaa gaagcacggc gagggccaca aggacgacga cggccacggc agcagcagca 180

gcgacagcga cagcgactga gccagctccg gccgctgca gtgcanggga gatgaacgcg 240

tgggttaatt tggagcgtgt ggtagcatat gtatgtaatg cttgacatgt ctcattggatc 300

ttgtaatgta ataaccggct tcaactgcaag gtgcctttta ataataactt taaggaattt 360

ccattggtaa tttgtacc 379

<210> 7041

<211> 258

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-D12

<400> 7041

cggggccatg tacgagagca tgctcactgg aaacgtgtct agatcgaaga tggaggtagt 60

aaacccccca ccggtttatt tcactttgtg agactgggag gggctggaag ctttttattt 120

ccaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acccaaaaaa aaaaaaaaaa aaaaaaaaaa 240

aaaaggggcc cccaaaaa 258

<210> 7042  
 <211> 371  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-015-Q1-E1-D2  
  
 <400> 7042  
  
 cgggtcaagat atccccgggtc gacgggcccgg atcatgatca cgagaaatat atatatagga 60  
 taataagggtg gtgtattgcc gccatgtccg ttgagctgat gtttgtttca gctagagaaa 120  
 tcgttacgcc cgctcataat ttttcgacgc tatggaaaat aataactact ggtatatcac 180  
 tctatatcaa accggcttgt gaaataaatg gttgcgcccc ggttttttgt cgtcaaaaaa 240  
 aaatgaaatg taagcaaaat caataataaa aaaataggaa aaatgtttta aaaaatatat 300  
 gttgcaaggt ttagaaactt gtggtagcat ctgtacgtaa tgctttacat ttcccatggg 360  
 ttttgtgaag t 371

<210> 7043  
 <211> 342  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-015-Q1-E1-D4  
  
 <400> 7043  
  
 cgggtccagct atccccgggcc gacggggacc acaaggagaa gaaggacaag aagaagaaga 60  
 aggacaagaa gcacggcgag ggccacaagg acgacgacga ccaccacaac accatcagcg 120  
 catccatta gcattctacc attttcctcg gagagaagta gccagaaaca gcagcgccat 180  
 ggccggcatc atgcacaaga tcgaggagaa gctccacatg ggtggcggca gcgacgagca 240  
 caagaaggac gaggagcaca ataaggcgga ggagcacaag aagaaggacg gggagcacia 300  
 gaaggacggc gagcacaacg agggcatgat ggtgaagatc aa 342

<210> 7044  
 <211> 406  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-015-Q1-E1-E3  
  
 <400> 7044

ggtccagata tcccgggtcg acgggaggca caccacgttg agcgcgttga gctcgatctt 60  
 gacgtcgtag cagaagcgcg ccgccagctc gaaggccttg gcgccgcccg ggatgtcgtc 120  
 cagctgcagc gtgcacatgc cgccgccgtc cgacggcggc cggctactcg tgatcagacg 180  
 ctgcagcacg ccgctccggc tcaacagcgg gaactgcatg ctcataatga cgatcgatgc 240  
 accgttagtt agtcacatta acgcgcgcaa tcgatcggtt tgtgcagttc agttgggtgaa 300  
 tgcgaaatgt gacggcgaca cactcgatcg tgctaacctt gtggagataa aaggacatgt 360  
 ctctacttc cagcagcaca tcgctctcga gtcgggtcat gcatct 406

<210> 7045  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-015-Q1-E1-E9  
 <400> 7045

gggtcgacgg gtatgttgac aatgaaagta tgccgctcan aatattatctt atctctgctt 60  
 taaaaccgag ctttggcacc tctacaaatc cctgcttcnc tctgcgaagg gectatctat 120  
 ttactttcat gttgagtcac caccctctta ttaaaagcac tagctggaga gcgctgctgt 180  
 catttgcatc cattactatt aatttatatt gggatgact atgactggat ctcttttacc 240  
 atgaattaca atgtctagtc agtccttgat ctttaaagggt gctctgcatt tatgttttgc 300  
 ggtctcagaa agggctancg agataccact ttg 333

<210> 7046  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-F1  
 <400> 7046

acggtcaagg aattccgggt cgacgggggt caccagggtgc ggatccgtat aagataacat 60  
 ttcagattgg acacgagaag ttccatgttc cttggcttta tgttattaat cgcaaaagct 120  
 ctgaagttcc attgactgat ttccatttaa gatacactgg aaacgatttg cttgggtgta 180

cggctaaagt agtggacatg cctcagcatt ttgtggaact tcatcctgat atagagaaga 240  
 ttttctggga tccacagaat tggcctaaat atgtacttgt aagttataca tgggaggaac 300  
 aatcagagat agatgttact gcaggattct atgtgttatt tggatctggc cttgttcttt 360  
 ccttcacctt tgcaatctat gtattgcaat catcgcagga taaattaaca aggtttgtac 420  
 gagaagcggg ttctg 435

<210> 7047  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-F11  
 <400> 7047

cgggtcgacg cggatattaa tcaagcattt gaaaaatatt aaatgtgcat agaaaaatgt 60  
 tgacgatgta ttagaaaata ttattctatt atttgaaaat ctttttgaag catttgaaag 120  
 aatttaaagt gtgtatagaa aaaatgttga ccatgtattc aagaaatgct gaccatgtat 180  
 gtgaattgtt ttaatcatgt atttgaaaaa tgtatatcaa gaatatgaaa tatgtttaag 240  
 tatgtataga gaaactgttg accatttatg aaaaaaaaaa tgttaaactc gtattggaaa 300  
 aaggaaaaag aaaccaaaga aaaaaaaaaa ggaattgaga aaagaaaaaa tgggttaaaa 360  
 cccatgaaag gaacaaaaag aaaccaaag gaggacgaaa gaagagacaa aaagatgtat 420  
 aatgaaaaaa ataaaacca 439

<210> 7048  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-015-Q1-E1-F6  
 <400> 7048

acgggtcaat gaagttggtg gggtcggtta agtttaccag gggagagatc gatgggggca 60  
 caactaaggt ggctatcacg cgtggcaacc ccttgtctga gcaaggcata catgagttcc 120  
 agactgaaat tgaaatgctg tcaaagctcc gccaccgcca tcttgtgtcg ctgattggtt 180  
 actgcgagga caagaatgag atgatcctgg tctatgacca catggcccat ggaactctgc 240

gtgagcacct atactagacc cagaatgcac cgcttaactg gacgcaacgt ttggagatct 300  
gcactctgtgc agcccgtggg ctgcactacc ttcacaccgg tgcaaaagca caccattatc 360  
caccgtgatg ttaaaacaac agtcctcctc c 391

<210> 7049  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-015-Q1-E1-F8  
<400> 7049

gggccgacgg ggaagacacg gcattggaag cccgcgcgga gaggagtacg agggttcact 60  
ggttcggctg cgggtgtgagg ctgccgtcgc cgcagggcct ggccagcggg gggaatagta 120  
ggggcggtga ggccctccgc gcagcacagc cggccatggg aggcaggagc atgcgacacg 180  
accggcgctg ctttgggtgg ctggagcaag aagaccagag gttgaagaag cactacggcc 240  
gttgatgga catcgtagcgc ttagtgagc tagaatcatt catattgact aagttgataa 300  
agcccttcat ccccatcaac ttagtaggccc cactagtcag cctcccacca aggtgggtcc 360  
cagctagccg ggggagtatt cttttttttg tgcgtaataa ggaggcactt ccgatggg 418

<210> 7050  
<211> 286  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-015-Q1-E1-G1  
<400> 7050

cggctctggaa atccgggtcg acggggaaga taggattagg aaggttcagg agctgaaggc 60  
gaaagcaaag gcggctttgg agaacggcgg gtcgctcgtgc atgaatctgg acaagctggg 120  
ccaatccgtc gtctgaaaat tagcgcggca tgcggccct gaataaattc tgctgctttc 180  
gtcattgat gagcagattg ggggtgtttc ttgcttgctt ggaagatcgg gattgagtga 240  
aaagcatatc ctatgttgta agttgcaact gtatctcatg ccaaaa 286

<210> 7051  
<211> 307  
<212> DNA

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

*[The page contains several faint, illegible markings or bleed-through from the reverse side.]*

[illegible][illegible][illegible][illegible]



gggccgaccg gatgctgatt gaagagttac taaatctttc gagaggcctg taccgatcag 60  
acctcacaca gtctgatctc tgtgcatcag tgtcatccct gaatcagtca cgctgagatg 120  
cacagtagct gaatgattta taacacagta gcaatcgtcc acgtattaca t 171

<210> 7054  
<211> 232  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-G8  
  
<400> 7054

cgggctgacg ggggagctaa ctgggacgag cgacagtctt ttcctacgag tctatcccc 60  
tacgagcatg cgcgtagtgc tttgggtttt gatgacttct aaatttttcc aacaagtata 120  
tgagttcgtt tgacgaatgt tgagtccatg gattatacgc accctttcac cctccagta 180  
ttgctagcct cgcgtgtagc gtgcaacttt cgccggtgcc atgcagccac ca 232

<210> 7055  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-015-Q1-E1-H1  
  
<400> 7055

cggtctagta atccgggtcg acgggctttg gagatgccc a tcaatagata tcaatgtgag 60  
tgagtaggga ttgccatgca acggatgcac tagagctata agtctatgaa agctcaaaaa 120  
gaaactaagt ggggtgtgcat ccaactcgct tgctcacgaa gaccaaggga aatttgagga 180  
agcccatcat tgggatatac aagccaagtt ctataatgaa aaagtccac tagtatatgg 240  
aagtgacaac ataggagact ctctatcatg aagatcatgg tgctactttg aagcacaagt 300  
gtggtaaaag gatagtaaca ttgccccttc tctcttttct cttatttctt tagtttgggc 360  
cttctctcgc tttttttggc ctcttttttc gtcgggagtc tcattctcgac ttgtggggga 420  
atcatggtct ccatcatctt t 441

<210> 7056  
<211> 450  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-015-Q1-E1-H11

<400>       7056

cgggtcaagaa tatccgggtc gacgggggtca cattgcttgt gaggcttata gtgatgtgca   60  
ttaccgagag ggcccagaga tacctctctg atacacggag tgaaaaatcc taatcttgat   120  
ctatgccaac tcccaaacac cttcggagac acctgtagag catctttata atctcccaat   180  
tacgttgtga cgtttgatag cacacaaggt gttcctccgg tattcgggag ttgcataatc   240  
tcatagtcaa aggaatatgt ataagtcag aagaaagcaa tagcaataaa actaacaatc   300  
ataatgctaa gctaattgat gggctctgtc catcacatca ttctctaata atgtgattct   360  
ggttatcaaa tgaccaacac atgtctatgg taaggaaact taaccacctt tgattaacga   420  
gctagtcaag tagaggcata cgagggacac   450

<210>       7057

<211>       421

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-015-Q1-E1-H2

<400>       7057

gggccgaccg gggagctcac taaggctctg atggacctca ccatgctcca ctacccttg   60  
tgactctgcc ccttgacgcc tccagtgtat gaggttcgaa tacacctcgt ccattcggcc   120  
gattgagcaa ggtgcagggt tcttgattga tgtgtgttgc gattgatttc tgcagtgcaa   180  
gggagggcac ctggcctgcg tggactgccg cgtcgagcgc ctcgagaacc agcggcagtg   240  
ccagaagtgc gagcacgatg gtggcttcga catgcggaac acgacggtgg atgccatcat   300  
ttcgtcgctg aagggtggagt gcccgcacga aggttggtgg ctctgcatca cttaccacaa   360  
gctcgccgat caccagagca tgtgtctgct cgcgccctgc anatgccccg tgccctgtctg   420  
c   421

<210>       7058

<211>       229

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB104-015-Q1-E1-H3

<400> 7058

ccgggtcgac cgggatccgc aacaaagtcg cgatcgacga ggccatgctg cactcgcccc 60  
aggaagacat cgcgagatg gtcacagtgc tgtacgcttc gtaccacctc ctcaacctgt 120  
agaggatggc cacggcgac gtttcttggt tgatgtgttc ttcacatgat ttctgccttg 180  
caagggatgg cacctctgct gtcttcaatg gcatgtctaa ctctgcac 229

<210> 7059

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-A10

<400> 7059

ggggacgctg cgaatgttcg acagaaggac caacgtgacg tggctaggtc gatgtcatgg 60  
tagctgtctg ctccgcatct gcatggctgt gagcatgccg tcccatcgaa catggtggtg 120  
cccaagggct cgggtacgag ccttcgcgtt ctgcgcactg caccacggc gccacgatct 180  
acaccattgt cgtcgtgcc accgtcattg tacaccacca cagagtacag tcctgagaag 240  
gttctgcagt caaagcgctt acgctcagga cgagcacata cgaacgccgt ccatgaactg 300  
tgcagatgca acaggttccg agctgtatcg aaacacgtca tgacatgaag acagcagtca 360

<210> 7060

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-A11

<400> 7060

ggccatgctt gaaagatgac gaactggggt ttagttgagt ttattgtat tttagaacct 60  
cggatgatgat ggtgatgaaa atttgtaaga gcagaacaga ataaaaatgt tttaggtgtt 120  
tatcaacggc tctgcagaat gcacgagttg cttgtcgagg ttaaggcacc gctagataag 180  
tgcaacacat aataatatca agtatgtcat gatcttgag ataagtcaa cataaaaatg 240  
tcaagtatat catgacctg gagataagtg caacataaaa atgtcaagta tgcctgac 300

tttccaggca gaattgctgg gatttggtta actgcacaaa cattcttgat cagcgcttga 360  
 tcactagatt tatacttaag cacttgataa caaggcactc attggttggtg tgaaaacata 420  
 tacagctaaa gaagaatatt attattgaca atctagggtt aacaaccac 469

<210> 7061  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-016-Q1-E1-A2  
 <400> 7061

tcgccgggaa cacgattccg gtggaggaga ttctgacgat cgacgtgaag ccgggggtgga 60  
 agaagggcac gaagatcacc ttcccggaga agggcaacga gcagccccac acgattgcgg 120  
 cggacctcgt cttcatcatc gacgagaagc cgcacgcggt gtacaccggg gacggcaacg 180  
 acctggtggc gacgcagaag ataccgctgg cggaagccct gacaggctac acggtgcacc 240  
 tgacgacgct ggatggggcg agcctgacgg tgcccatcag ctcggtgatc caccgggggt 300  
 acgaggaggt ggtgcgcggc gagggcatgc cgcttcccaa ggaccatcc aggaagggca 360  
 acctgcggtt caagtctgac atcaagttcc ccgccaggct caccgccgac cagaagtccg 420  
 gcgtcaagag gctcctgnng cagtanagca ggtctgtgtg tgttgttg 468

<210> 7062  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-A3  
 <400> 7062

ggggatcatc tatacgacaa agtgttctgg cacaaggag gtcaaattct gatgcaaattc 60  
 agttccaaat cacaagcag gctgcaaaca aggctgctac tatgcctgtg cgcggtaggg 120  
 ctgacagatg gaacaaacca agtggcccggt ctacctcagc acagaggagg cccgtaagcg 180  
 aggctcttca gaacagcaag ggtaaggaga tgcagaatga gcctccaagg acaatggatg 240  
 cgctctttgc acagatgaag cagcaacgga tgagggtcat gccaccgag caacccaaaag 300

ctcctaccaa tggccatcag tttaaccagc agcggcgtgg tcagcagcag cggcgaggca 360  
gagggggata tgggtgtccgc agcgggtggtg gtaaccgttg agcatggcac ccatatagaa 420  
cattatcact ggtgttcctc ggaaaggaga agcctcacc c 461

<210> 7063  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-A5  
<400> 7063

ccgggtggcc ggggttggtta gaaaaggagt gacacctgcc gagaagcttc tgaatctata 60  
cgagacgaag tggcagcgca gcgtggaccc tgtgttcgag gagttgttat attgatatat 120  
actgatatca tatataactt cgggtggacgc tggacaaggt ggacagggtc ttcagattgt 180  
atccccatac aaaatcccg tcccaattct acaagccacc tgaccaggga aacctactct 240  
ccggtctcgt ggctgcgaat aattttgagc tcggaacact ctgtttgtgg cttgccgcct 300  
ttcttttttc ggctgtgtgg accttttaca gcttctgatt tttctcgcac ctccaggag 360  
ccggaacaaa cacctgtttg taccgatccc cttttcatct tttcctgatg aactgcttgt 420  
attcggaata aatccacctc gtgtgatgat ggaaggaacc tg 462

<210> 7064  
<211> 461  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-016-Q1-E1-A6  
<400> 7064

tccgaaattc ncggggcgcc ggggaaggta ctcagaatat ggccctcaag ctaaggaaca 60  
ccgacactgg cgagctcatc atgcacctgg agtgggttaa cctcccccca ggcattgtgc 120  
ggtgatttga tttgatttgc aaagggaggc cagctattgc cttccttttg tgatcgtaat 180  
gttgcttcct ctatatatga gctatgagaa taattaagcg atgtctatcc cattctttac 240  
ataacaccca ctgtaatgat ttgtggatct cacaccagga tgggtgctct ataatatgag 300  
caacgtcttg gtgagacca cacatcatca cattgggttg tacgtaaggc atgtgataga 360

cttatgctac tgggggtaat gcttgtttcc agttttgggt ctgcatatgt tgtatggcta 420  
ttttaattaa aaaaagggtat attttgtccc aaaacaaaaa c 461

<210> 7065  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-016-Q1-E1-A8  
  
<400> 7065

gggactgctt gagacttttc atccttcacg tggcttcagg caaggggatc cgctatcacc 60  
atacttattc ctctttgtgg ccaaagcttt gccgttggtta cttaatgatg cttcggaaat 120  
gggggttata ctagatttcc ggctaaacag acatgctcca ggtatatctc atctaatttt 180  
tgctgactga tagactocta tttttctaaa ggtaacttac agcatgctct aaatgttaaa 240  
ggatattttgt cggcatatga cgatggaatt ggacaactat tatgtccgga taaatgtacc 300  
atcttaattg gcaaaaaatg ttcaaaggag gaccagttgt ccacctgat tacccttaaa 360  
atcacgatcg atggttttga cgataaatat ctgagcttgc ctgcaccatc acttttgaaa 420  
gctttatctt ct 432

<210> 7066  
<211> 463  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-016-Q1-E1-B1  
  
<400> 7066

tcgacgggga tcaaattttc aacgtaaata ataagattgt ttccaaagaa ctatctgttg 60  
gtagagctgc cttgtcaagt ctacttggcg gtattggcta cttctacggg cagtcaaaaa 120  
ttgcacttcc caaaggtttt tcacaaaaaa atggagataa atatattcca tattggcctg 180  
ctgcactata tacagctgtg cccagtcgct catttttccc taggggatc ctgtgggacg 240  
agggcttcca tcagttagtc atttggcgct gggatgcccc tatatccatg gacataattg 300  
gccattgggt ggatctaatt aatgcggatg gatggattcc tcgagagcaa atattagggg 360  
ctgaagcttt aagtaaagtt cctgaggaat tcgttctgca gtatccttcc aatggaaacc 420

ctccgacatt atttcttgcg ctgcgtgact tggcaagtgg cat

463

<210> 7067

<211> 476

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B11

<400> 7067

ggcgaggcga agaggcgggtt ccagcggatc caggaggcct actccgtttt gtccgacaag 60

gggaagaggg ccatgtacga cgccgggctc tttgatcccc tgcacgacga cgaccaggat 120

ttctcggact tcatgcagga gatgctggtg atgatggata gcgtagaaaa cgagaagccg 180

gacacgctcg aagacctgca gaagatgctg gatgacatag tcaacggcga cggcggtagc 240

cgcgccactg ctggtgctgg tggtagcggc ggcggtggtg gtggctgcgg tggtcgcgtt 300

ccaccggagg ccaaccgcag aactcgtgtc gcccttacc cgcagccttc gccaaggtga 360

tggacgcgcc ggtgctcgtg acgtgcacgc accgctgcgc ttgtaggaga gagatcagag 420

caagaagaga gcaaccagcg tgaaaaaaaaa cattagcaaa tcagaattgt tgctcg 476

<210> 7068

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B2

<400> 7068

ggggatccgt aaaaatcttc gaagtaaagt cacttaaadc attcagatga ggataccacc 60

ctatcatacc acatcacacc cattttaata gcatgttggc acacaaggta gaccattata 120

actcagagct aatcaagcat ggcacacgca acgatgatct ctaattgtca ttgcaaacad 180

gtttattcat gacaagctga atcaagaacg atgaactcat catatttaca caaacaagaag 240

acgtcgagtt cgtaccagct tttttcatcg cagtcagtcc atcatatatc atcattattg 300

cctttcactt gcacgaccga gcgatgtgga taatcataat agtgcacgtg cattggacta 360

atctggaatc tgcaagcatt caattcaagg gagaagacac ggtaatatgg actcttggtt 420

aaatctacaa tcatgtatat 440

<210> 7069  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-B3  
  
 <400> 7069

gggatcatct tatggcctcg ccggactcag agaggccctc cgcgacgaca ctttacggtc 60  
 gcccgcgctcc ggagcggagg agtcgggagg aggcgtttcg ctctccatca tctctggaag 120  
 aagatcccc aaagacaagc tcatttgaga ggggctaagg ccggaactgc aaagatacat 180  
 gcagcgatta tcttctcaga agaaaagacg acatatctgt actattaagg tattttgggt 240  
 cacttacgac tcgtgggaga attgatcccc ccaaggactt tgtgcggcaa ccgcgcccc 300  
 cggggtagga ccctctgtgg gagacttctt ctcccgtttc gaagcttcgg ctccgaatc 360  
 cccaaacgca atccttttcc tcttctggtc gtcttccttc atgaagacgc tactccctc 420  
 ggctggagca gccagcgttt ggggcccgcg actg 454

<210> 7070  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-B8  
  
 <400> 7070

ccgggtgccc ctccgaggac gaggtgcagc gcatgatggc ggagatcgac accgacggtg 60  
 acgggttcat cgacttcagc gagttcatct cttctgcaa cgccaacccc ggggtcatga 120  
 aggacgtcgc caaggtcttc tgaatcagtt catttcacct cagccgtccg atccaggagc 180  
 cgatccatct acgtacggct tcgtatatca atttcatgca actacctact ccggtcccga 240  
 tccagcctca gttcacctg aggcgggccc taattttggt tgatcatttt ttgctacca 300  
 gtagtaacta gtgatgatca ctgttccatc atttatttat ttatatcat cacaagtttc 360  
 ttttctttct ctaccttttt gtcgatcgtc ggctccagct cgatccaacg atccatgctg 420  
 ctaattgttt gtgtacgggt gatttaagta acctgtgcac t 461



<210> 7071  
 <211> 330  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-B9

<400> 7071

ggggacaccc cggaggtgca ggggctaggc cggctcctcc ttcattgcggg gactgatcta 60  
 gacgcccggg ttgtgccggg tgaggccggc tcctcaatca caagacggat tgaaaacttc 120  
 aattgtgctt tccaaaatga atttacccca aatttaccac aaaaattacc ttaaataatt 180  
 ttccacaatt tttttccgtc acaaaagtta actcaacctt tgtgcctaag ttaatgaatt 240  
 ggtgggtgggt ataataccat tatatttaca caaaatatgt ccccatatat agtataaaac 300  
 cttctcttat atatctcaaa cttatcacga 330

<210> 7072  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C1

<400> 7072

ttccgggtcg acgggctgcc ggacaatgtg ggccgcccgg cggaccgggt cgtcggcgag 60  
 gagatcgaag gcaggggggtg gtctgagatg ctgaggatgg aggtggacga catgaccaag 120  
 gagatatgcg gggatgtcct gggcgaggtc gttgaggagg cgctgtcaga gctcgccggg 180  
 tgccgttgat ggatgtcctt ctttatttgt ttgccctgct cggggtgggtg tccaccgggtg 240  
 gcttttattt ccgatctggt ggagaccgtt tgctgaggac cggcgcatct tggctccttg 300  
 tgtgtgtgtg tgtgtatagt cccctctgac tgtcctgtat gctccagtca agtgtgcgtg 360  
 cccactcccc tctctctgtc gcgccacatg ccgttacagt tgatacatte tattctacag 420  
 taataatgat cgtgaatgat accaagaaaa aga 453

<210> 7073  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C10

<400> 7073

ggggggctcg atccactaac ggtatcggtt gcacgagtc acggacggct ccacccatcg 60  
atgggtccac ctttaagcaa ccaccacat cgggtctacg caagaagcaa ccacccatat 120  
agggtcgacg aagtagcaac cttgtctatc ccaccatggc catcgcccac aaaggacttg 180  
cctcactggc ggtagatctt cacgaagtag gcgatctcct tgcccttaca aactccttgg 240  
ttcaactcca caatcttgtc ggaggctccc aagtgaacac tagccaatct aggagacacc 300  
actctccaag aagtaacaaa tgggtgtgtg gtaatgaact ccttgctctt gtgcttcaaa 360  
tgatagtctc cccaacactc aactctctct cataggattt ggatctgggtg gaaagaagat 420  
ttgagtggaa agcaacttgg ggaacgctat agattaagat t 461

<210> 7074

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C11

<400> 7074

gacccagtta tagccacgac caaataaac gtagcactac ggctatttaa gccaccctct 60  
gcctctgcca tccctcatcc atctgccctt cttgctcttc gaccccttct ccgtcttctg 120  
catatccctc agccatgcag tacaccggac caacctactg cttcccaccc accgtgccgg 180  
agaggctcta ccctaccggc gtgtacgttg atcgcatact atgtgtgtgg gcgatatcaa 240  
ggctgaggac cgcaaggaac ttcgccgagt tcttctctgc gtcgggtac caccatctcc 300  
cgaggggatc tccaacgatg ttccgcgtcg aggaggtcat ccaaaaccgg gtggtagtgtg 360  
ctctccttgc ccacttcacc aacacattcg acgccttcta cctcctcggc cgggtgtttt 420  
gggtgtggctc cgagttcatc gctttcacc 449

<210> 7075

<211> 442

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-016-Q1-E1-C4

<400> 7075

ggtcgccggg gaagcgggtcg atcgacgctg acacgccgcg gcggcgggag tcggcacgca 60  
gcaacgagggc ggtcgaggag gcgcggatca agctgctgga gctgcggcag gtgaacaagg 120  
tgaaggctct cgtcggcgcc ttcgagaccg tcatggacga caacgaaagc cccgtcgccg 180  
cccgcaagtc gcgggtgaac cccacgcct gaactacatt caacgagcac gaagctcgat 240  
tgctgctgct tcctttatcc ctgctactct ttaatcacc atcaacccaa tttgtcgctcg 300  
tcgccactt atctataatt acggtaccgc ttatatattg caaggaggaa gatgatggag 360  
gggttattat gatgtaataa taataatgat caaggaggat aaaanaaaaa aaaaaaaaaa 420  
aaaaaaaaaa gcggccgctc ta 442

<210> 7076

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C6

<400> 7076

ccggggcgcc gggcaacggt gaaaagaatt tgacaggtct tggagaaaat acataagact 60  
gatgataatt cattcttacg tcaaaacttta aaaagaattt gagaagctcc gggaaaatta 120  
gaagagtcag gtaagatcct gggaaagacc tgtaggttag ggtcaactca aaagaaacac 180  
cgttgaacaa tttaaaagcg aaattgcgcc ggttgaaata aatggcttga atgaggtaac 240  
atccttaaaa gaacttgatt gaaatgagaa tggaaacttg aaccttctga gatattttcg 300  
aactccgaa acaattgatt accaagaatt ggatgattta gaaggtgcac cgacatgaga 360  
aaccatttga accaaaaaaa agatatgatt a 391

<210> 7077

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-C7

<400> 7077

ggggtgaaag gagaagttcc tcgacctgga atatgatgtt caaggctcgg tcaagtttgg 60

tgatgggttca aatgtggaaa tttgcgggca aggttctgtc ctcttcgagg gtctcatagg 120  
 agaacatcgc atactcaccg gagtatacta catcccaagg cttcgcaaca acatcatctc 180  
 tgcggggaaa cctgacgaga atggatgcaa ggtggatatt gagaacggag tgatgacgat 240  
 cttcgacaac ctctcaaacy tgctagcccg tgtaaactgc acacggaaca agctctatat 300  
 cctcaacctt gatcaatccc aaccggagtg cgagctcgcc aagagtgatg atgattcgtg 360  
 gttatggcaa tgctagattt ggacacgtca acttctacac cttgaataag atgtogaaga 420  
 tggagatggg atctgggatg ccgtttattc accatg 456

<210> 7078  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-C9  
 <400> 7078

ggggtggccgg ggggacgagc gatgggtcttt tcctaccaat ccatccccct aggagcatgt 60  
 gcgtagtact tcgtttcgat aactaataga tttttgcaat aagtatgtga gttctttgtg 120  
 actaatgtta agtccatgga ttatactcac tctcaccctt ccaccattgc tagcctctct 180  
 aataccgcgc acctttcgcc ggtatcatac acccaccata taccttcctc aaaacagcca 240  
 ccatgcctac ctattatggc atttccatag ccattccgag atatattgcc atgcaacttt 300  
 ccaccgttcc gtttgttatg acacgtttca tcattgtcat attgctttgc atgatcatgt 360  
 agttgacatc gtatttgtgg caaagccacc ttcataatta tttcatacat gtcactcttg 420  
 attcattgca tatcccgga caccgccgga ggcattcaca tagagacata ttttgt 476

<210> 7079  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-D1  
 <400> 7079

gtcgacgggg aattttgctg tgttctcatc caacattatt tttatttaca tgatggcaag 60  
 caagcaataa ttttgttgta taagtcaatc atatgatact tcacaattgc taatacaaaa 120

ggtaggatg gacatacagc acaagatagc ctttcttgct cgtttctcaa aagacatggt 180  
 tccgttggcc aagagtttaa cctgggtttg ccgtttcatg ctcaagaata aggataccac 240  
 aaaggaatcc ggtcatataa aagcatatag taaaaagaag tgtacaagta taatagcgat 300  
 agcagagagg aatgtgttcc tttatttata aacaataagg cgaattatag ctatgactga 360  
 acttggcgta agatctgttt tagcttgatg gctctatgca aagctcccta gtgagcaacc 420  
 gcggccttta accaatcaag aagttcgcca ttgtcaactc tactttttt 469

<210> 7080  
 <211> 482  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-D12

<400> 7080

tccggacttg ccgggtcgcc gggggtcacc tcgatcggcg tccgcggcaa ggactccgtc 60  
 tgcgtcgta cccagaagaa agtcccgac aagttgctgg atgacaccag catcacgcac 120  
 ctgttctcga ttaccaagta caccggcttg cttgccactg gcctcacagc tgatgcgagg 180  
 tccttgggtc cccaagcaag aaatgaagca gctgagttcc gtaaaaaatg gggatatgag 240  
 atgcctgtgg atgtattagc aaaatggata gcagacaaag cacaaatata cacgcagcat 300  
 gcgtacatga gaccccttgg tgttgttgcc atggctcttg gttacgatga agagaaaaat 360  
 gctcagctct tcaagtgtga cccgcaggt cacttctttg gacacaaggc aactagtgcc 420  
 ggactgaagg agcaggaagc aataaatttt ctggagaaga aaatgaagga tagccccag 480  
 tt 482

<210> 7081  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-D3

<400> 7081

tcgacgggtc tgcaacattc agatccgtat gtatcttgca aatctctatg tctccctcct 60  
 tgacttgatc gcggatggaa ttgaagcgtc tcttgatgtg cttggttctc ttgtgaaatc 120

tggattcctt tgccaaggca attgcaccag aattgtcaca aaagattttc attggaccgg 180  
atgcactagg tatgacacct agatcggata tgaactcctt catccagact ccttcatttg 240  
ttgottccga agcagctatg tattccgctt cacacgtaga tcccgccacg acgctctgct 300  
tgcaactgca ccaactgaca gtcaccat ttaataaaaa tatgtatccg gtttgtgact 360  
tagagtcac cggatcagtg tcaaagcttg catcgacata aacgttcaca acgagctctt 420  
tgtttctcc atatacaaga aacatatact tagtcttttt 460

<210> 7082

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-D4

<400> 7082

gggctgtcat ccgagttcag ttctctgatg gagtaattct ccagggtgta ttccttccag 60  
cggaggctac tggttcacta tatgagtttg tcgcggacgc tttgaagcag ccaggtttgg 120  
aattcgatct tatctgccca gctgttctta ggtcacgtgt gctaccgcat tctccaaata 180  
caggagagcg ggcacgcacg ttgcaagatg aaggcctggg accttctgct ctctcaaat 240  
tcaagcccaa tgagactgat tctgttgtgt tcaccggctt gcttgacaag cttctggagg 300  
ctagtgaacc atttacagct gcactctctt gattgttggg gttcggggcc acattctccc 360  
ctcaaatctt ctgttacatt ggacttcata ctgttgtaac tcagtcacag ggatatgtca 420  
tctgcatact cgataggttg attgatagtc tggtagatag 460

<210> 7083

<211> 133

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-D7

<400> 7083

aagcgacgtc ggtcactgaa gatcacaact cttgacatgc atcctgggtgc agataaagcg 60  
tcacttgatg ctcttagttc tcaagtgaag tctgagttcc taaggaaaag cagttctctga 120  
agtcgtggca ttc 133

<210> 7084  
 <211> 294  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-E1  
  
 <400> 7084  
  
 tccgagtgga cggggaccca gtcgattgac caatcaatgt catttgcttt gcaggcgtca 60  
 cgcgctcaca tgccgatctc tgaggggatg ctcaatgtga gaacctcgtc acgatgtcct 120  
 acatgcctta gcactgttcg cttactgtgc tcggagtctc atgggtcact cgcattgccta 180  
 cggcagggtta atcatttcga tccttctcct gtgtggacca tgagttcaca gactctgcac 240  
 atcgcttggtt aacgtgcacc atgcaccttg tagaagtaca tctggtcaca tcag 294

<210> 7085  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-E10  
  
 <400> 7085  
  
 gggcaattgg tgaccctctc ggagcagcag ctggtggact gtgaccagta cgacggcggg 60  
 tgtaaccgcg ggtcctatca cagggcttac aattggattg tggagaatgg cggcctcacc 120  
 acggcagcgg attaccgta cacggcgggtg aggggcgcct gcaaccgcgc caagtccgcc 180  
 catcacaccg tcaagatcct cggcggcggc gtgatccgc ccaggaacga gcccgaatg 240  
 cagcttgccg tctccgggca gcccatcggc gtggccatcg aggtcggcag cggcatgcag 300  
 ttctacagga gcggcgtcta ctggggccct tgccgggacaa atcttgctca cgcggttacc 360  
 atcgtcggct atggcatcga cgcgctact ggggccaaagt actggctcgt caagaactcg 420  
 tgggggcaga cgtgggggtga gagcggctac atcggcatgc gccg 464

<210> 7086  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-E11

<400> 7086

gggagatggt ggtagcactg ctcgacgagt ccgacctgtg catctccgat agcgcagtcg 60  
aggagatcgt tgacaatacg ttcagtcaag cagactcgaa tggcgatgac aggatagacc 120  
ccaaggagtg ggaggagttc gtcaagaaga acccagcatc gctgaggaaac atgtcactgc 180  
cctatctcca ggacattaca acggcgtttc cgagctttgt gatgcattcg gaagccgacg 240  
attacagcgg aatcagcaaa taataaccgg gccttagtgc cacatgatcc gctccggcta 300  
tctatgaaca tgctgctggg aggctggctg cgcgttcaat tcagaggcgc gtgagctgca 360  
accggaaagc ccggagctcg aatgggggga gaacgcaagg gagccgatcc ggtagccggt 420  
gagcgtgaga tgatgtccac cggacgatga cttcatgtcc atgcga 466

<210> 7087

<211> 496

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-016-Q1-E1-E2

<400> 7087

gcctgtccgt acggctccgg atattccagg tcgacgggag gataacgaga tcactcctca 60  
cgagaagtgg accaagagta ggacaacact ctcgtactta cgtacctggg gatgcttggc 120  
gaaagttaat gtgtcgatcc gcaaaaagcg taagcatgga ccaaagactg tggactgtgt 180  
taatttgggc tatgctatga atagtgttgg ctatagattt ctagtagtga aatctgaggt 240  
acctgacatg aaggctcgga caattatgga gtctaaagat gctacattct ttgaggacat 300  
tttccocatg agatatgtac aaagcacttc tagacaggaa tctgaggaga ctctgaacc 360  
tgccatttcg atggaatatt ataacaaac acatgatgaa aatcccaggg aggataatga 420  
ggaattcctt ggtangggca agagacaaag gactgtaaag acctttgggtg atgatttctt 480  
catatacctc gtggag 496

<210> 7088

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-E3



<400> 7088

ggggaccatc atgatcatga agaatatata ggataataag gcggtgtatt accgccatgc 60  
cccgttgagc tagctgatgt tgtttcggct agagaaaatc gttacgcccg ctcataattc 120  
ctttttcgat gctctggaga ataataacta ctggtatatc attctatata tcaaggcccg 180  
cttgtgaaat aaatgatcct gcgccccggt ttttgtgtcg tcgatcaaaa caaataaaaa 240  
aatgaaaaaa atgaaaaaaa aacagaaaaa aaaaaaaaaa aatgtaaaaa acaataaaaa 300  
aaaaatataa gaatcaaaaa aaaagaagaa ataaaaaaaa aagggggccc tccaaaagat 360  
tcgaatttaa gattatcggt atgagaaatt aaaatctctt aaaaggggcg cctcaatttc 420  
gttatgaggg tcatcttt 438

<210> 7089

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-E5

<400> 7089

ccggggcacg gggaaaagga aaagaccctt cagtcctatt tataaagcaa gggacatggg 60  
tcagggtcga aaatcaagga gctgcaagtt tggaacaga gttgtgcct cgattatcgt 120  
agatctatta aacaagaagg tatcacagat agttttttta tgatagatga cgtcacgccg 180  
atttacagca atcagagaag ataacatcac ggcggttcat caaactataa gaagatgttg 240  
aagatgaagt ttttgctaag gattgacatg aacctgttca aatcaatctg gggcctaattg 300  
ttggggatat tactactggg cgtaaaccgg cctatctggg ccggattaac ttcatacagta 360  
gttaagcatg ttaaagccca tgaaggtaga tgagggtca agaccataa tcggttgaga 420  
gcctgtagcc gtaaaccggt gtcaatatat aacttgatt gtaag 465

<210> 7090

<211> 209

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-E6

<400> 7090

ttccggggcg acggggaaaa tgacgagaca cctcacacgg tcatacaatg ccagggtaccc 60  
 ggttcacgtg acttccatca aggaaccgcg catctattaa tctggggatt cgcacgatcc 120  
 tgtgagctct cttacacacc ggggatacca cagttcaact ctattgtgct aaatgaattc 180  
 catccctatg atcacaatga gaaatcctt 209

<210> 7091  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-F10  
 <400> 7091

gggattgacg ccaagcttca gcagaccgga gggggctttc ctgcccctta gaaggagctt 60  
 gctgcagcct ggcagttcta tgctgtatgc tacctttaga actagagtaa aatgtaagaa 120  
 gtgaaagaac ttgcgaggct atgattctgt gccatagcct gagggggggt ctggagggtga 180  
 aagaacatcg gagtactgtt gatgtcgtga ctgaactatc atccattgcc taatagatca 240  
 tgccttggtg tgttcccaat gatttgcaat agaagaaaca atttcagatg aaagtaaaat 300  
 ccggcgctct aaaagattca aacctaattg agcctggcag ggacattaaa agtcctcgag 360  
 aatgacaacc aaattcaact tcatgggcct cgcttttgca cgtcataaat gggaaaaacc 420  
 cgggggttaac caa 433

<210> 7092  
 <211> 474  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-016-Q1-E1-F11  
 <400> 7092

ggggtcagaa attaagccac caccgtgctc ttaaagatat aagtgaagca ctagagcaaa 60  
 aactatcaag ctcaaaagat ataagtgaag cacatagagt attctagcaa attctaata 120  
 agtgggattc tctcaaaagg tgtgtacagc aaggatgact gtggtaaact aaaaagcaaa 180  
 gactaatata atacacgacg ctccaagaaa aacacatatc atgtggcgaa taaaaatata 240

gctccaagta aagttaccaa tgaacaaaga cgaaagaggg gatgccttcc cagggcatcc 300  
ccaagcttag gcttttggct attattgaat atcttggggt gccttgggca tccccaaagct 360  
taggctcttg ccactcctta ttccattgtc catcaaactt ttacccaaaa ctagaaaact 420  
tcacaacaca naactcaaca ggaaatctca taagctccgt tagtgaaaga aaac 474

<210> 7093  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-F12  
<400> 7093

gggcataagg cctaccccg g caacaagacg gtgagtgaat ttgctggcga gcactgcac 60  
ccagacatcg acgcggcatg caaggatccc agctgcagcg acggtgctta catcgaatgc 120  
ggcagtgcgg cgtcgagatt ctgctacatc aaggccaccc ccgccaacaa gaaagccata 180  
cagcaaaact tggattgctt caagagctgt tgcgcgcaga agaagagtga agactgccgt 240  
aatgaatgca tcctcaacaa gagtagtccg gccgcttgaa aaatgaaaat gcatgcattc 300  
cttccttctt tccttgtact tgggggtggt tccttcattt cagagtgcct cattcatgca 360  
tgttttcaca tgcgcagtga ttcattctcat ttttttttgt tgaacattta ttttgtcttt 420  
ttttttgttg cgaaaataaa attcattttg ttgttgac 458

<210> 7094  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-F2  
<400> 7094

ggggaccaaa ctcaggctcc caacgcccaa agccttcgca tccagagctc caaacctac 60  
gcgaggcgag gcgcggcgca gcggaggag aggccatgga tcccgatctg gtctcgaagg 120  
cgttcgtgca gcactactac cagacgttcg actccaaccg cgccgcgctg gtggggctgt 180  
accagaacgg ctccatgctc accttcgagg gcgagaagtt cggcgggccc gccgccatcg 240  
ccggcaagct cggatctctc cccttcagc attgccagca caagatcgac accgtcgact 300

gccagccctc ggggccccag ggaggcgctc tcgtcttcgt ctccggcacc atcatcacgc 360  
 gccccggcga gcacccctc aagttctcac agatgttcca tttgctgcca tctggaggga 420  
 gcttctacgt gcagaatgac atg 443

<210> 7095  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-F3  
 <400> 7095

tcgacgggga agcggctcgtt cgatgctgag acgccgcggc ggaggagtc ggcacgcagc 60  
 aacgaggcgg tcgaggaggc gcggatcaag ctgctggagc tgcggcaggt gaacaagggtg 120  
 aaggcgctcg tcggcgctt cgagaccgtc atggacgaca accaaagccc cgccaccgcc 180  
 cgcaagccgc ggctcaacct ccacgcctga actacgagta cattccacca gcatgaagct 240  
 cgatcgctg cgcctcctcc tttatcccggt ctactcttta atcaccatc aaccaattt 300  
 gtcgtcgtcg cacacttata tataattacg gtatcgctta tattttgcaa ggaggaagat 360  
 gatggagggg ttatcatgat gtaataataa taatgatcat ggaggaagat ggtgtatttc 420  
 actttatata 430

<210> 7096  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-F4  
 <400> 7096

ggggcacggg gaggagagga aggaagctgt gggtaagctc agggacacgg tggttcagct 60  
 caggtctgcc ggtggccacg acgatgagga acggcaacag cgatgactat attttctcgg 120  
 tccgctcggg tggaccgggt aaagaccgga ccagaccgag aacttttcgg gcctaatatg 180  
 gcagaccgga ccgtccattt tatgtagcga gctaggaccg agcgagccaa gaccgaacgg 240  
 gccacgagcg ggccgaaaag cccgcttggt acgtccagcc tgacggacga cgatccaact 300  
 gacttggttc ctgccccaaag tggctagatg tgcacgtaca aagctagcac cagtctccga 360

togatccctt tgtcagagac atatactagt actaactagt agagtgtccg tgcgttacaa 420  
aatcacgga agaagaaag 439

<210> 7097  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-F6  
<400> 7097

tccgtacatt cccggggcgc cggggagggtt gagaagctga ttggcaggat agtgaagtgg 60  
ctgaagcccg gtgggcatat ttcatcagg gaatcgtgct tccaccagtc tggggattcc 120  
aagaggaaag tgaacccgac gcactaccgg gagccgaggt tctacaccaa ggtgtttaag 180  
gaatgccact cctatgacca agaggggaat tcctttgagc tttctctggt aacttccaag 240  
tgcattggag cttatgtgaa aagcaagaag aaccagaacc agatatgttg gctgtgggag 300  
aaggtcaagt gcacagaaga caaaggcttt cagagattcc tggacaatgt gcagtacaaa 360  
tccactggaa tcttgcgta tgagcgcgtg tttggggagg gttatgttag caccgggtgga 420  
ttcgagacca caaaggagtt tgtggacaag ctggacctg 459

<210> 7098  
<211> 467  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-F8  
<400> 7098

tccccgggcg ccgggcacca tcgtaaagaa caccaagcga aattagattc ctcccttagcc 60  
atggcacacg ctgactcccc gaagcatccg ctcaactccg tcaaacatcc tgattttgat 120  
gtcacctact ccagcgacac gataaccgtg gtcacgccc ctgttcaaga attcatccaa 180  
ttaaccagtt aacttgccga ctaatcccta ctcatagggt caccgagccg ccgataaacc 240  
gaaaaatcgt ctgattaatt gattaaatgg ccgattaact tgccgattag ccgattaatc 300  
ccctactcgc tagccaaccg agcagctacc agttaacgat ttcctcaaca atgggtcatcg 360  
cccacatagg ctaaaccaaa ctcaccagac ttgtacgaag agaaccactc cctggtgggc 420

gtcgcgatgaa aagagcaagc taaatccaac atccatgctt cagtttt 467

<210> 7099  
 <211> 275  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-F9  
 <400> 7099

cggcagcagc agcagcgaca gcgacagcga ctgagccagc tccggccgcg ctccggcagc 60  
 agcgtgcagt gtacgcgaga tcgatgaccg cttgggagaa gtgtggcata catatatgtt 120  
 gcaggggtttg gagcgtgtgg taccatatgt atgtaatgcg tgacatgtct cacggatctt 180  
 gtgatgtata ataattagcc ggctgcactg cactgcacgg tgcttgtcat actaacgtta 240  
 atgaatcatg ttggtattga tgcattctccg tttgg 275

<210> 7100  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-G1  
 <400> 7100

ggggacctgg agatacaaca tttggagttg tatggtttgc aggagcaagg tgctgcagtt 60  
 agggagcttg agaaccaact gaagataaac aatgtcgagt cacagctata ctccctgaag 120  
 atcgaatcct tgcaatctga aaatcagagg ttacaaacac agttgtctga aagctcaaag 180  
 ttaacttccc agcttgagtt gacaaaatca aaatgcaagc tgttgaaaaa gaagttgaga 240  
 ctggatgcgg aacaagcaaa ggagaaaatc acttcccttc agaacatagt tgattccttt 300  
 cagtgtgaagg agattattga gggagaagtt gacggcgagg ctgagaagaa attaaagagg 360  
 ctagaggaat tggaaaatga ggcaagagag cttagagctg caaattcaag gctgcagcag 420  
 gagaattcac accttactag gcgattggag ctcacacgcc ta 462

<210> 7101  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-G10

<400> 7101

ggggatcagt ttaatgcttg ataattgttt tgagatatgg aggtagtaat gttagagtca 60  
tgcaaattggg taattatgaa attgagaaat acgtgtgctg aacttggcaa gtcccgtagc 120  
atgcatggat ggtagaagtt gtgtgacaga tttgttgcatt gaggtgctct tttgattgcc 180  
ttccttatga gtggaggctg ggatcgcgcg atgggttaact cctaccatcc cttcggctac 240  
gagcatgcgt agtaggactt tgcctcgaag gcaggtagac ttttgcaata agtatatgag 300  
ttccttatga ctaatgtgag tccatggata tacgcacact cagccttcca cattgctaac 360  
cacgacatta ccacgcaact ttgcgcggta tcatgcaccc cttagttacc ttcctcaaaa 420  
tagccaccat acctacctag tatggcattt ccacagccat tccgagat 468

<210> 7102

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-G11

<400> 7102

gggtctactt agaaagatga caggaattgg tcattcacat ggtagtcat aaaatcctac 60  
ataagatttg tagatcactg aatatgatat gtttgattcc ttgcaatagt tttgcgatat 120  
agagatgata atatgtggga ggttctagta gatggttgtg tttagtaaga atattggtgt 180  
taaggtttgt gattcccgaa gcatgcacgt atgggtctcct aactatgtaa ccaaattggc 240  
gcacattgta ttttgattgt ttatctttac gtgaaggctg ggcgcacgcg atggttagct 300  
cctaccaacc tcccccttag gagcatgcgt agtagtactt tgcttcgagg gctaataaac 360  
ttttgcaata agtatatgag ttcttttatga ctaatgtgag tccatggatt atacgcactc 420  
ttacccttcc atcattgcta gcctcttccg taccg 455

<210> 7103

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-G12

<400> 7103

gggtacatga ttcacaaggg ggcgacggtg aacttcatgg tggccgagat gagcagggac 60

gagcgggagt gggagaagcc aacggagttc gtgccggaac ggttcctgcc aggcggcgcg 120

ggcgaggctg tggatgtgac cggcaaccgg gagatcaaga tgatgccgtt cggcgtgggc 180

cggaggatct gcgccgggct gggcatcgcc atgctccacc tggagtactt cgtggccaac 240

atggtgaggg agttcgagtg gcaggaggtc accggcgagg aggtggactt cgccgagaag 300

aacgagttca ccgtcgtcat gaagaagccg ctgcgccac gcctcgtgcc ccgaagggcc 360

tgagacaaag tccatctcca tcagccagta gtcaaaccg accaatagtc cactcctatc 420

gcttcgggtcg ttcttgttta gttactctat ggttgataat ggttaattcg t 471

<210> 7104

<211> 460

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-016-Q1-E1-G2

<400> 7104

ggggtcatat ttcagggccc aatgcatggt agtagctgtt catggatcac aaacatagaa 60

ctcagttcct gaggacgtct tcaatgagac aaccaaccat gtactcctac gtggcttctc 120

accgctacct ttaccaaadc gtattcacac acttagctct caacagtagg acatgttcac 180

caatttccaa ttcatccccg atgaatcaga cctgactcaa ctctaagcgg tagcaggcac 240

gacgaaaaaa gcatgaatga gtaggcacat cagggtcaa acaactccta ctcatgctaa 300

tgtgtttcat ctatttactg tggcaatgac aggtcatgca gaggaaaagg ggttcaacta 360

ccgcagcatg taacacttga attgttggtg tcctaatagca gtanaagaga gcaagagcga 420

gagaatggga ttgtatcgga atgaacaagg ggttttgctt 460

<210> 7105

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-G3

<400> 7105



gggggccaca cacagttttg aatcgattta tcttttttgc tgagagctgc tcagatgtcc 60  
aaataagttg aaatttttaag cgaacctcat gcatcaaatt gccaatcaca caaaaaatta 120  
gattttttta aattttttta gtatttattt tgattttttt tgaccgggtg catgagtctg 180  
ggcaccgaat tgggttttcg tttgtaaacc ccatttactg gtacaagagg ttatcagaag 240  
tctaaaacta aatgtaatgt agatctctag agatgtaatt tgcattgcat ttatagcaca 300  
ggaagtagta tcctggaaca tttggtgaca tcaataaaaa agaaagagaa gttc 354

<210> 7106  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-G6  
<400> 7106

cccggggccc cgggcaagat caagacctac ctggcgcgcc catggaagga gtactccagg 60  
accatctaca tccagaacga gatcgggccc ttcacgacc ccaagggctg gctcgagtgg 120  
aacggcgact tcgccctcga gaccctcttc tacgccgagg tggagaacac cggggccggc 180  
gccgacatga gccagcgcgcc caagtggggc ggcacaaaga ctgtcaccta cgccgacgcg 240  
cagaaggagt acaccgtcga agccttcacg cagggcgagt agttcatccc caagtacggc 300  
gtgcccttca tcccggggct cctcccgagc tcagaggcgg ggaggggatca ttaactcacc 360  
actccatccc tcacatggtt tcattattcc gctgctccat tgctgctt 408

<210> 7107  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-016-Q1-E1-G7  
<400> 7107

tccgatgatt ccgggtggcc gggggccagg tagacatccc acctttcttc ttcaacaatt 60  
atcggttagt atcggttgag cctaagtttt tgcttcttca catgatgagt gctatccttg 120  
aaatgtactt ttattttggt ttgcttggtg tttgaataat atcccaagat ctaaaattct 180  
taaagtgtac agagtcttca catagttaca taattattcg actactcatt gatcttcaact 240

tatatctttt gtagtagttt gtcatttgct ctagtgttc acttatatct tcctagagca 300  
 tggcggtagt tttattttgt agaaattatt gatctctcat gtcctactta tattattttg 360  
 agagtcctaa acagcatggt aattttcttt agttatgaaa ctagtcctaa tatgatagac 420  
 atccaagatg gttataataa aaactttcat atagagtgc ttaaatacta tgat 474

<210> 7108  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-G8  
 <400> 7108

ggggaagcgg tcgatcgatg ctgagacgcc gggcgggcgg gagtcggcac gcagcaacga 60  
 ggcggtcgag gaggcgcgga tcaagctgct ggagctgcgg caggtgaaca aggtgaaggc 120  
 gctcgtcggc gccttcgaga ccgtcatgga cgacaaccaa agccccgcca ccgccccgaa 180  
 gccgcggctc aacctccacg cctgaactac gagtacattc caccagcatg aagctcgatc 240  
 gcgtgcgcct cctcctttat cccggctact ctttaatcac ccatcaaccc aatttgctgt 300  
 cgtcgcacac ttatctataa ttacgggtatc gcttatattt tgcaaggagg aagatgatgg 360  
 acgggttatac atgatgtaat aataataatg atcatggagg aagatggtgt agttcacttt 420  
 atatacgatc atcgacacga 440

<210> 7109  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-016-Q1-E1-G9  
 <400> 7109

tggactaggg cgtacagggc gcggagctgc gcagggtccac gtcttttcggg gtaagaagca 60  
 ggacgcatga tgcgacgagg caggaggaca tgtactcgtc gtggatgaac gacggtggca 120  
 gcgacatgct ggcggcgcgg tggtcggacc tggagcagat ggtcgcctag ttaattaatt 180  
 cacatcttcg tttcagactc cagtatataa ggagaaaaag aaatatgtaa tcgttctttg 240  
 ttttttttca aacttgttgt gtcggaacac tgataaaaag aaaatttcac gcccaaaaaca 300

aaa

303

<210> 7110  
<211> 475  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-016-Q1-E1-H1  
  
<400> 7110

ttccgaggtc gccgggggca gaagctgagg cccccaggtt ccccggggca cggatcaaaa 60  
agataatgca agcagatgag gatgttggca aaattgcact ggctgtgcct gttttagttt 120  
cgagagccct tgaattgttt ctgcaagatt tgatcgacca ctcatacaaa attactcttc 180  
aaagtgggtc aaagacactg aattccttcc acctaaagca atgtgtgaag aggtacagct 240  
cttttgactt cctaactgag attgtcaaca aggtgccaga tctcgggtggc ggtgaatctt 300  
gtggagatga aagaggatta cccagaagaa ggaaattttc aaatggaagc gaccagaga 360  
atgaggagcc ccgatctagc aaaatgccca taagaagctt gaacaccagt cccagaggac 420  
gaggcagagg tcgaggaaga aggcgagggc ggcctccaac caagagaaag gaaat 475

<210> 7111  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-016-Q1-E1-H12  
  
<400> 7111

ggggaatttt gtttgcagtt attttgattt gatttgcata aagcatggga ctgggcatcc 60  
tggtgacgag ccatttctga gtgaggagcg gagtccactc ctcttgagaa taaccgcct 120  
aacatggaag atacgaacag ccctagttga tacatgagct atttgggcat acaaacaga 180  
atgtttatth aaaggtttag agtttggcac atacaaattt acttggaaag gcaggtagat 240  
accgtatata ggtaggtatg gtggactcat atggaacaac tttgggggtt atggaattcg 300  
atgcacaagt agtattccag cttagtacaa gtgaacgcta gcaaaagact gggaagcgac 360  
cagctagaga gcgacaacag taatgaacat gcattaaaat taatcaacac cgaatgcaag 420  
catgagtacg atataatgcg ccatgaacgc aaatatcg 458

<210> 7112  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LFB104-016-Q1-E1-H3  
  
 <400> 7112

gggacgctgt tgattggtga acgtatggtg tgtttcttta agaccttggtg ctctggtaag 60  
 acagtcttca gaggtcctgt gaatgatcat gcattgcaaa atgtcatttc cgagaatctc 120  
 cggttcccggt ccttcccggt tgtcatcaac catgcctagg atctcatcag aggattgcta 180  
 gtcaaggacc tgggtcaacag gctgggaaca ttgagaggag ccaccgcat catccatcac 240  
 cttttctttg aacgggtgaa ctggctcctg atacgatctg ctgccccaac atagacaccg 300  
 tcgtgccatg tcctgactct tgcgacggtc cgccatacta cagaaagcaa atgtctggac 360  
 ttcgatgatct ccgagtagca gtactttgaa cttttctaga taagtcttta gtacatttag 420  
 cacaatttca gctgatagtc tacaattttt ctgttgac 458

<210> 7113  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-016-Q1-E1-H4  
  
 <400> 7113

ggaaagtacc cacacctacg gcggctactc caacatggtg gtggtgcacg agcgcttcgt 60  
 ggtccgggtc ccggacgcca tgccgctgga caagggcgcg cccctgctgt gcgcgggcat 120  
 caccgtgtac acccccatga aataccatgg gctgaacgct cccgggatgc acctcggcgt 180  
 actgggcctg agcgggctca gtcacgtcgc cctcaagttc ggtaaggcct tccggatgaa 240  
 ggtgacggtg atcagctcat cgccggggaa gaagcaggag gccctcgaca ggctaagcgc 300  
 cgacggcttc gttgtcagca agaacgccga cgagatgaag gctgcatga gcaccatgga 360  
 tggcatcata aacacggtgt ctgcaaacat ccccatgggc cctctcgtcg ggctactcaa 420  
 gctcaaaggc aagatggtca agg 443

<210> 7114  
 <211> 120  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-H5

<400> 7114

ggggtactgt cgaagttccg cgttggttcg ctctccggcg tccgtttctt tgttccggcg 60  
 cttggttttcg ctgtggtgcc tcttgctggg gttggttttcg ggacgccgtt ggggtctctgc 120

<210> 7115  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-H6

<400> 7115

aggagacccc cgccgcgctc gtacatgaga gaaggcactg gcgcagtcac ggcttagata 60  
 tgaaagtttt ggacaccgag cggaactcag tcgagagctt atatatgaaa actagtgaga 120  
 gagagaagac tatatattat caattagaag agaactatat acattgtttt tccctaagct 180  
 caataaggctc tgtgtccttt gtggactcgc tttcttcttt gtagagacag aatatataag 240  
 accgaggatt gcattcaaat ggaaattaaa ttcaagttta gaaaagaaca ttagaactgg 300  
 caatgctaa 309

<210> 7116  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-016-Q1-E1-H7

<400> 7116

tgagcacgga ggacgtgtac gaggcattgg gcacattccg tggaaaatag ggttccccca 60  
 gaacgatgac ccgtacggtt acagtagccg gaagagaaaag atggatcggg aagcaaatgt 120  
 tgtggcgcggt ttggcatcgg aatggatgt gatgaacaaa accgtgagtg tactactagc 180  
 cgaaagacat gcagctcggg cgcaacatga agatcatcca gcggatctca taagccagca 240  
 gcggataagc aatgtggctt ccactgagge cccatcggct ggtgcagatg caccgacgat 300

cgaaattact gcaccggaac ctctggtggt cgaaattact gcacctgagc ctctggtgga 360  
 caacattact gcaccggagc ctctcgcta ccccgaggac gatataaacg agatgataga 420  
 gtgtcatctg tattatccta gcggga 446

<210> 7117  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-A10  
 <400> 7117

gggaagatgc tcaggctggg tggcggatgg agcagggtgt ggggtttcgt cgcggtttt 60  
 cgcggcctcg gtgtacgaat ggggtggcag atgggatggc agtagggaac catggccttag 120  
 agacgcgctt gtccgaaatg tggggtaagt tacggaagta cccccactga tttgaggtgg 180  
 ttctttcggg tcaggggtac cacgggcatt tcgtgtgtcg ggatttcaca ggaggtggga 240  
 gtttccgcac gcgttgtaat ttcggaatag caaggcgcgg gttgagatgg agggagttgt 300  
 cggagcacac agagacaaag atatatctta aatatttcgg gctaacaagg cgcggttga 360  
 agacgcggga gtttcacatc acgatagaca gagacggtag cttgaatttt cggcataaca 420  
 aggcgcagct tgaaatttcg gaagaacaag cttaacgtgt accc 464

<210> 7118  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-A11  
 <400> 7118

aggaaggttc atggttcgga tcatggggta tttgcttcac atacggcacg tggtttgcta 60  
 tagagggcct atcggcagtt ggacagtgtt acaataatag cacctacatc cggaagggtt 120  
 gccagtttct attatcaaag cagctaagga atggtggatg gggtgagagt catctttcat 180  
 ccacaaccaa ggcatacacg aacctagacg gggagaaatc acatgtagtc aacaccgcat 240  
 gggcaatgtt ggcactaatg aaagctggac aggccgaacg aaatccgtct cctttgcacg 300  
 aagctgcaag acttatcatg agcatgcaac ttggcaatgg tgacttccca caggaggaaa 360

tgattggaag tttcttgaaa a

381

<210> 7119  
<211> 478  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-017-Q1-E1-A12  
  
<400> 7119

tccggatttc gcgggtggcc gtacaccgct caccatcgac gtgcccgggt ggctcaaggt 60  
gaaggtggag ccagaggcgc tggagttcac gtcggcgatg gagaagaaga cattcacggt 120  
gaccgtgagc agcaggggag gcgacgccga cgccgggcag ctggcagagg ggagcctacg 180  
ctgggtgtct gaagatcacg tgggtgcggag cccgatcatc gcggacgcca gggttgtccc 240  
gacatgattc tgtcaggcgt tcgttgtact cagccagcct ggtagcata agcacaagta 300  
tccatacagt tcacaacatg gagacattat cgttcttccc aactagcact actccttgag 360  
gtcccgattg caaacatgca atcacacaaa tagggcactt atcaaaggag gtcaactgaga 420  
taaccttgta tctttactgt atcaaatact actactcaaa atcctcaagt tgcccagt 478

<210> 7120  
<211> 343  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-017-Q1-E1-A2  
  
<400> 7120

ttaacccaac cctcccccaa accgaacca accggaagga atccccccgc ccctgaacgg 60  
tatttccaat tataagggcc taattgcctt cttccctggg aaatttgatt ttttccagat 120  
ccgagactga agtttcgtga ttttgaatta tactcagtga ttgtaataat cgggatactg 180  
aggatgttta ccaactgctca agaaatataa aaaaggatga cacatattct tggttctgaa 240  
tttttgaaca tgcctgagca ttcataagat gcaggaacce tatttggggt ggctttggct 300  
tatgtcagct attgaactta ctagcttata aaccagatca tgc 343

<210> 7121  
<211> 391

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-A3  
 <400> 7121  
 cccgggtcga cggggcggct gaactagcgg gagtaactga agtggctgaa gcccggtggg 60  
 catattttca tcacggaatc ctgcttcac cagtctgggg attccaagac gaaagtgaac 120  
 ccgacgcact accgggagcc gacgttctac accaaggtgt ttaaggaatg ccaactcctat 180  
 gaccacgaag ggaattcctt tgagctttct ctggtaactt ccaagtgcac tggagcttat 240  
 gtgaaaagca agaagaacca gaaccagata tgttggtgtg gggagaaagt caagtgcaca 300  
 gaagacaaag gctttcagag attcctggac aatgtgcagt acaaatccac tggaatcttg 360  
 cgttatgagc gcgtgtttgg ggaagggtat g 391

<210> 7122  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-A4  
 <400> 7122  
 ggggtcgacgg ggaagtagac gtcagagtcc atgatgaaga agccagtagt cgcgcagAAC 60  
 gctcccaaaa aaccttatta cccttctccc gtacaggact caaagcgggtg tggtttcgga 120  
 ggctactat cctgactcgt ggtgcatgct gcaagccggg atgangaaga caacagtagc 180  
 tcagagaatg gaaccggtgg cgagaggaag gagaagttct ggtgcatctc tctgggagga 240  
 ccgacctcnc ttttataggc gcaagagaag gaggcgagaa gctgcgccgg gagctgagct 300  
 gaagggatcg agggagacga aacgaagagg cagcagccga aggtgctgc gtctgtattc 360  
 aatatccact acagcaaaaa ctttctagct cccgagtggc ctttcgtata cccgtagtgc 420  
 atggcaaaaa 430

<210> 7123  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-017-Q1-E1-A5

<400> 7123

ctagcgggat gacgggatgg atgaaggatc atcatccggg gaggtggacg agggacaatg 60  
agctgttgcg gtggacgatg tcgtcgggga aagaggctcc ggctgggcag cggtgaggtg 120  
gcggacggag caggggtggg tttcgcggct ggagcggaga ggttatggca gcctgggatt 180  
tcgaatggcg aaaaggaggc gatgggaggg gtcaaccatg acttagggac acgcttgtcc 240  
aaaatgtagg gtgtgttaca aaagtacccc caccaatttg aactagcggc cttttcggct 300  
cagggttaga agtgggattt cgtgtgtcgg gatgtggcag ctggagggag ttttcgcgca 360  
cattgtaatt tcaggat 377

<210> 7124

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-B1

<400> 7124

cgggtcgacg gcggtcccggt ttcgagtcac caactggggc caatgggtggg gggccaggag 60  
cgagggacat tgggtcccggt ttgtcccacc aaccgggacc aataggtcca gacgaaccgg 120  
gaccaatggc ccacgtggcc cggccggccc ctggggctca cgaaccgggt ccaatgcccc 180  
cattgggtccc ggttctggat tgaaccggga ctaatgggct ggatcggcct ggaccattgg 240  
ccccctttct actagtgtta tagaatgctt catgtgcttc acttatatca tttgaagttt 300  
ggattttcttg tttctcttca catagaaaac tgatgttcgt agaatgctct tttgcttcac 360  
ttatatttgt tagagcatgg tctttttag aaagaattaa aatctc 406

<210> 7125

<211> 349

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-B10

<400> 7125

ccgttggtta tagataaact tctagtcatc aacgcacagt tgattcatct ggtgcgtcat 60

atgctaattg catcattgcc tgctactcat atatagtcac ccttgcttta gacaccttgc 120  
 gtgatatcca tctatcaact gtacattaat atacagctca tagagcttcc cctacatott 180  
 cgaggcgtaa cacatatgct catactgogg cacttccaca tttttatcgt catagtttgt 240  
 gcgctagtgc atcccttata tatttttaaag cattgatgtc gatcgactat tgattgactg 300  
 atgatgtctc acgcttcact tagattatatt tgagactcct gcacaacat 349

<210> 7126  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-B11  
 <400> 7126

tcctaggtcg ccgggctccg ggcccaagga caacggcggc gcctgcgggg acaaggaggt 60  
 ggacaaggcc cccttccacg gcatgacctc ctgcggcaac atccccatct tcaaggacgg 120  
 ccgcggtctg ggctcctgct tcgagctcaa gtgcaccaag ccagaggcct gctccggcaa 180  
 gccaccatc gtcaccatca ccgacaagaa cgaggagccc atcgccccct accacttcga 240  
 cctctccggc cagccttcg gctccatggc caagaagggc gaggagcaga agctgcgcga 300  
 cgccggcgag gtggagatca tgttccggcg cgtcaagtgc aagtaccgc cgggcaccaa 360  
 ggtgaacttc cacgtggaga agtcctccaa cgaaaactac ctggcgctgg tgatcaaatt 420  
 cctccaaggc gacggcgacg tgggtgggct ggacatc 457

<210> 7127  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-B3  
 <400> 7127

atgatcgatt agattgctgc tattgctttc ttcatgactt atacatgttc ctatgactat 60  
 gagattatgc aactcccgat taccggagga acacattgtg tgctaccaa cgtcacaacg 120  
 taactgggtg attataaatg tgctctacaa gtgtctccga tggtagcttt tgagttggca 180  
 tagatcgaga ttaggatttt tcaactccgat tgcggagag gtatctttgg gccctctcgg 240

taattcacat cactataagc cttgcaagca atgcaactaa agagttagtt gcgggatagt 300  
gcattacaaa acgagtaaag aaacatgccg gtaacgagat tgaattggta ttgagacacc 360  
gacgatcgaa tctcgggcaa gtaacatact gatgac 396

<210> 7128  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-017-Q1-E1-B4  
  
<400> 7128

cggttcgacg ggttgctgta gattaccttg attaggttgc tgattgaaac cgccttgatt 60  
gccttgggccc tgaaatccag agtttgaacc gccacctcca aagtcggggcc cgtgagagcg 120  
gatcctgacc cgccatgcgg tccgtgattg tcttgataaa aaccggaatt tctgtattcc 180  
ctcatgatga agcaatcttc ccatagatga gtggccgggt tatcttgaga accgtgcttt 240  
gggcaaggct ggttcattat cgcctcaagg ttgaacttgg gcccgcctaaa ccggggcatt 300  
gacgatttcc ccttacgacg ctgattatta ttctgcgtgt tggatttggc caciaagtcc 360  
gaatcgccgt cggttgcctt gcgcttaaca ttattacctt gacnccgctt attgtgccgc 420  
tgcccccttg c 431

<210> 7129  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-017-Q1-E1-B7  
  
<400> 7129

aattccccggg ccgacgggag gaagaaacgg cgcgtccgt tccccgccca tgcttgcacc 60  
cagcgggggcc ctcaccaggc ctccacttcg ccggaccacc gtatcctgcc gggcaaaggg 120  
tagccccggc gtggcgtact gcacgctacc ggttctgcag ctactctatt atgtcagaac 180  
acttgagagg gatgaaagtg aaacagcagc accagcagca gcgaagatac tgctgctccc 240  
tctcactcg taccctgctc ccgctgggtc tactcctcac cggagccaac cgcaaacagg 300  
gcagattgtg atcatttctg aactagcaag atacagcaca gcgcagcatt ctgtctatat 360

atccctccct ggttccctgt ctgaactttt gtttgaaaca gagttcctga acttcctaata 420  
taacatg 427

<210> 7130  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-017-Q1-E1-C1  
  
<400> 7130

gggtcgaggg gaattcacca ttaacaggct aattgcccta ttatcaataa tcaatttttaa 60  
tctaattgaa attcatatta agcacataat atatttcatt tccatattaa ggaagcagaa 120  
tttcataatt gaaatacatc agagtacaac atgatatagc ttcagcactc agctacccca 180  
ttacacaact gcaccagcat caagtttcac atgcaacatg tagaaccttt caaaattagc 240  
atcatagaca gtatatagac agatgcatct catctggaaa agtgctgaag cggaaggcga 300  
atattgagcc ttcattcatg ttgaaggctt ttgcaacttt aggccagtgc ctgtggatga 360  
ttgaccgtcc gtcctgcatc ctcttcagga acacttcaat attgaaccgt ggggtgttgta 420  
tgaaa 425

<210> 7131  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-017-Q1-E1-C11  
  
<400> 7131

ggagcggaag caagcctaca tagcggagct cgagtcgctg gtcacccagc tcgaagagga 60  
gaacgcccac ctgtccaaag aacaggagga ggcaaaccag agacggctga aagagctcaa 120  
ggaaaaattg actccagtca ttattgcaaa aacgccgtca caagatctta gaagaacaaa 180  
ctcaatggag tggtagacat gagccaagct cagtagccat ccccttacag ctatgtagat 240  
tttgatttgt ttgtctgtca ttcctctgtt tattggagtt aactcagttg ttgtaactta 300  
gtagatatag cataaacagc ttaaattggaa tcataatgtg tagagcggaa ggctgcgttt 360  
gagcaaaatg gaatctcatc agcagcttat attctgtctg atttgccttt c 411

<210> 7132  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-017-Q1-E1-C8  
  
 <400> 7132

atgcccggt cgacggggca cttgacctc tagctataga ctgattgaca ggcattggttc 60  
 attgttattt ccttccttta atagtattgt aagggaagca ggttctccaa ataaatgcgg 120  
 aagattgcag catcaagggt atcacttcac tggatttttc tacttcttgg tgggcagcta 180  
 aattagtttc cctgggtccgt ttctcaacta tcacagaaga actctttact ctgtaatttt 240  
 ctctttattt gtgctgaagg catagatcaa gtgctacatg gctatgctct tcggagctta 300  
 gagcatcagt ggttggcctc ctttctattt gttctttttt ctaggatttg cgtgtgttaa 360  
 tcggatgaat atatggaagg atacagagag gccagagagt ttgctatcaa attctcaagc 420  
 agcaagaaga tagctagcct aaatg 445

<210> 7133  
 <211> 276  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-017-Q1-E1-D11  
  
 <400> 7133

ggatcgtctg cgacagcgga gatggcgctc tcgtggagct tgtgaatggg attctgcaaa 60  
 gatcagactg ggaggaagca ataaaaatgc caattggggt agttccagct ggcacaggaa 120  
 acggcatggc caaatcgctt ctgcatgctg ccagcgagac gtgctcagtt tcagacgccg 180  
 tatttgccat tatcagaggt catagtatgc tttcaggcac ataataaag tttccacggc 240  
 agtttcaa at agagaaatct gatggaaaca acaact 276

<210> 7134  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB104-017-Q1-E1-D3

<400> 7134

gggtcgagcg cggaagcgga cgtcaatctt angccactga cgatggagga cctgaggcan 60  
gccanaaatc aggtcgccgc gagcttcgcc gcggagggcg ctgtcatgaa cgagctgaag 120  
cagtggaacg acctctacgg cgaaggangg tcgaggaaga aggagcagct gacctacttt 180  
ttgtagaacc ggaaggatgg tggatgtgtc gtgttgggca aatcgctgaa gccttggcag 240  
agcatgagca tacatatgtt ggtgggaaaa ggatagagga tttcctgtga gcaaccgtga 300  
gttaggatct tggagtgaat ggactccttg agatgtgtgg cagggggcat tggatcatgt 360  
acgattcttt tatacgaaca agtattgtag ttat 394

<210> 7135

<211> 382

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-017-Q1-E1-D4

<400> 7135

gggtcgaggc aaagagctga ggcacgctgg cggagacggt gaagggcggtg atgcgggagt 60  
acccgaagct gcgcatgtcg cacggggcgga tgggtttcga ggtgcggccc accatcaagt 120  
gggacaaggg caacgccttc gagttcctgc tcgagtcgct gggcttcgcc gactgccccca 180  
acgtgctgcc cgtctacatc ggcgacgacc gcaccgacga ggacgccttc aaggtgctgc 240  
gccggagggg ccatggcgtc gggatcctcg tctccaagca cccaaggac accagcgctt 300  
ccttctcgct gcangagccg gccgaggtca tggagttcct gctccgcctc gtcgagtgga 360  
agcagctctc caaggcgcgc ct 382

<210> 7136

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-E10

<400> 7136

gggattgggc cgaatcccca tccccaaatt cgagcgccgc tgtgatttcc tcgccccgcc 60

tccctccttc cccggtgagt ttccctggag taggggagat acccctttgc gaccaatggc 120  
 aggatcttcc atcagcacca ctccggtcct ccaattcctc ccatcttggc gcccgcatcg 180  
 ctgtccatgg cgcacccctt tgggtgcctc cagagtggtc gccggtgctg gcacttgtgc 240  
 tcgttgata caacatgctc ttctttgaca accatgggtc acggcgacga ggtgccttgt 300  
 tccgtgcggt tcgttggtca tcggagtcac ctcggttttt ttgcagtaca gagaagctac 360  
 ggtgcagtcc cttaacctga gcatgatact cacctcccc tgacattgca gttcgctgta 420  
 gtactccggt aatgccatgg cgctggagtt cacagtg 457

<210> 7137  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-E11  
 <400> 7137

ggcaactcgt aaagataatc aagggttcttg gaacgccaac tcgggaggaa atacgttgta 60  
 tgaacccgaa ttatacggag tttaggtttc cgcagataaa agctcatcct tggcacaagg 120  
 tttccacaa gaaaatgcct cctgaagcca tagatcttgc ttcacgtctt cttcaatatt 180  
 caccaagcct ccgttgcaact gctcttgacg catgtgcgca tcctttcttt gatgagctac 240  
 gggagcctaa tgcgcgccctg ccaaacggac gcccgttccc acctctgttc aacttcaagc 300  
 atgaactggc caatgcttca caagacctca tcaacaggct tgtgcctgaa catgttcgcc 360  
 gacaagctgg tcttgctttc gtgcatgcgg ggagctaaat atgcgcaccg gtgccctcaa 420  
 ccttgcacct tattgttttg ccatgggcag aagggtggtg gtttaaga 468

<210> 7138  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-E2  
 <400> 7138

gggtcgacgc gcacgatgac gaccaatgca attgtttcat agttttgatg ttctcaaact 60  
 ttttcaatct tcacgcaata cataagcgtg agccatggat atagcactaa ggtggaataa 120

aatatggtgg gtgtgaagaa cacaccaagg gtgacgatat tctcatatca actatgcgta 180  
tcaatgggct atgaagatgc acatcaatac atatcactgt gagtgattag ggattgccat 240  
gcaacggatg cactagagct ataagtgtat gaaagctcaa attgaaacta agtaggtgtg 300  
catccaaact gcttgcccac gatgatctat ggcaatttga agaagcccat cattggcata 360  
tacaagccat gttctataat gaaaaaaatc cactagtata tgaaagtgaa aacat 415

<210> 7139  
<211> 369  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-E6

<400> 7139

attccgggtc gacgggcat gctaccgtgc ccggagaaga agttgatcca gcaggtggtg 60  
ttcgccagct accggaaccc gctggggatc tgcggcaact acacgggtggg caaatgccac 120  
acgccaagg ccaaggatat tgtgacgaaa gatttcgtgg ggaacaggag ctgctgtctg 180  
gccgtgtcgc acgacgtgta ctctggagaa ttcaactgta cgtgcaccac ggtcacacat 240  
cacatccatg caatagtgat caactaggca taggaacgtg gacctcacat gtaaaactatc 300  
ctcacagata taccgctagc tttatcatcc caacaccttc tgcacacag cccattttcg 360  
ctatcaggc 369

<210> 7140  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-E7

<400> 7140

ccggtcgacg ggaaatcaaa ttagcaggct aattgccta ttatcaataa tcaattttaa 60  
tctaattgaa attcatatta agcacataat atatttcatt tccatattaa ggaagcagaa 120  
tttcataatt gaaatacatc agagtacaac atgatatagc ttcagcactc agtaccacca 180  
ttacacaact gcaccagcat caagtttcac atgcaacatg tagaaccttt caaaattagc 240  
atcatagaca gtatatagac agatgcatct catctggaaa agtgctgaag cggaaggcga 300



atattgagcc ttcattcatg ttgaaggtct ttgcaacttt aggccagtgc ctgtggatga 360  
 ttgaccgtcc gtcctgcac ctcttcagga acacttcaat attgaaccgt ggggtgt 416

<210> 7141  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-E9  
 <400> 7141

ggggtggttt atcagatggg gtcagccaat gtgatagcag gacctgaatc acccacctta 60  
 aaggtggtcg tggtagacta tgtgtattca ttcttgagga ggaacttggc agaggggtcac 120  
 aaggtgttgt ccattcctaa agatgagctg ctcaaagttg ggatcacata tgagatatag 180  
 agatgttttt tttttgtttt tttttttttt tgaaacggaa cacagattgc attcctccta 240  
 catatcattg ctggggcaa atccccagctac aaggttctga acaaactctg ggaattgtcc 300  
 caaccaagta atacatgcac cagagttaa tgttgctccg aaaaaataaa atccatttaa 360  
 aacaaaaaaaa aagcggccgc tct 383

<210> 7142  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-F10  
 <400> 7142

gggctactga catatataat catcaaattt tctcaccgt atgtctttta catattgtc 60  
 tgtggctctg gctagaccat tttgagcggc acggaggtac gcatctcccg tattgaaggc 120  
 atccaatgcc tcttgggaga aacaagcacc acgaagaatt gtccggcgac gctgtggtt 180  
 catggaactc tccacctcgg aattgggtggc agacagcccg tccgcatcct ctgtcagagg 240  
 agcgtccggg gcatgcctcg tgttcgtctc cgcttctgga cccggccttg gagcctggct 300  
 ggtggaggcg cggttggcaa cctctccgga tgtagtccgg cgagcgctct ttttcctaaa 360  
 aaaagcacgg gcgttagcat gccttgaagg aataaaacct ggaataaaaa cggcacgcca 420  
 tactgttgtg tccgcatctc aatccggacc gcac 454

<210> 7143  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-F11

<400> 7143

```

gggggcaaga gaagtttggg ggccttaggg atggatacta tatccatggt cagtgtgcga    60
ttatcatgtt tgatgtcact tcaaggctga cctacaagaa tgttcctacg tggcacaggg   120
acttgtgcag ggtttgtgag aacatcccca ttgtgctgtg tggcaacaag gttgatgtga   180
agaacaggca ggtaaggcc aagcagggtga cattccacag gaagaagaac ctccagtact   240
atgaaatctc tgccaagagc aactacaact ttgagaagcc cttcctttac cttgctagga   300
agctggctgg tgatcccaac atccacttcg tcgaagcagt ggccttaag cctccggaag   360
tgaccttga cttggccatg cagcaacagc acgacgctga gcttgccggt gcagtggcac   420
agccactgcc tgatgacgat gacgatctga                                450
  
```

<210> 7144  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-F2

<400> 7144

```

cgggtcgacg gggttcaaga cgaaagtgcg gtctccggcg aggaagagta gaacatggga    60
gacggaccag ccagttggca caccatgccc agccgcctcc catgccctac tcacacctga   120
aggagtcccc aaccttagca gtgccggaca ttggacggcg gcaagtagga cgcgtggctg   180
acggtgctcc tgtcctcggc cgccatcgtg tccactgttt ggcagtcgcg tccgcgtctg   240
gctacgctgc tattgcatcg cgagcgacga cttgagcgag ggcagcgtcc tcgagcttca   300
tccccgaaga caaagctctc ctgtagagcg ttcacgctcg cggtcatggc ggatgtggtg   360
ccaggtagca ggacgatgcg ctatggggga aaaanaa                                397
  
```

<210> 7145

<211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-017-Q1-E1-F5  
  
 <400> 7145  
  
 gggtcgacgg ggagtacaaa aaggcggagg agcacaagaa gaaggacggg gagcacaaga 60  
 aggacggcga gcacaaggag ggcatgatgg agaagatcaa ggacaagatc agcggcgacg 120  
 gccacggcga cggcaagaag gacggcgacc acaaggagaa gaaggacaag aagcacaaga 180  
 aggacaagaa gcacggcgag ggccacaacg acgacgacca ccacaacacc atcatcgcat 240  
 cccattagca ttctaccatt ttctcggag agaagtagcc agaaacagca gcgccatggc 300  
 cggcatcatg cacaagatcg aggagaagct ccacatgggt ggcggcagcg acgagcacia 360  
 gaatgacgag gagtacaaga atgcggacga gcacaagaag aacga 405

<210> 7146  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-017-Q1-E1-F7  
  
 <400> 7146  
  
 gtcgacgggg aaatcgacga ctctgactcc ggcgccactg tctatggcga caaacgacag 60  
 agcattaagt ctgccctcat cagatgttcc agcgtagtac acacatctgc cgttcaggac 120  
 gatgtcgggtg aactactaa agtggacagt ggtacatcat atcatgaata cacaatggga 180  
 aaacaagcac gatacctgcg taatgactaa tgttgtctac gtgtcgaca cttcatgcat 240  
 accagatcgg aggatttctg gactgatgta tgctgtcatg tctgttttgc tgatgcatct 300  
 acttccttag cacatctgtg aaatcttgct ttgctcgatg gca 343

<210> 7147  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-017-Q1-E1-F8  
  
 <400> 7147

attccccgggc cgacgtatgt cgtgaacaag ggtaagggttc ccggagtcta cgatgactgg 60  
 gaggagtgtc ggagacaggt tcaccgattc agcggtaaca gttacaaagg gtacacacta 120  
 gggccgaggc cgaatctaga tacgcccgtc atctagcggg agaggggagg gagcgttgga 180  
 ggaaccggat gaagacgagt ttcacgtgta tgatgctcat cgtgatgacc gcagctctct 240  
 tctatgtgat ggtagtttag atgatcgata tcgacttgta atgtgaagtc aaactcgcta 300  
 ctgcgggtct cgagacttgt aatataatgt tctatctttg tttggctctt tcaattcgga 360  
 gactaatatg atgaattgta ttcggagact aatatgatga attgtattca aagactaatt 420  
 ttt 423

<210> 7148  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-G10  
 <400> 7148

ggtagtttgg atagattaac acatacgagt atctcacatg gttacatata tgcataact 60  
 ccctgcgtcc gaaaaaggaa aaatctacgt aggattattg attactgata taagccagcc 120  
 tcttctaaaa atgtaataca tatttaattg ggcgtggcta tatgtcaatc acgtgaaaat 180  
 aaatttaggg tcagtcactt tttcttttag ggcaagcagg cacgaaggaa cgctagccat 240  
 atgtaagtag tattagcgta aagtggcagt gctagcta at tcacgtgtgc acgtctattt 300  
 tccctttgtg tgcgcgcgag tgtgtctgcg cgtgcacgct gccacatgtg catgtgctcg 360  
 catgcgtgtt actccatcta tttctaaata tttgttttcc tagagatttc aacaagtgac 420  
 tacatacaga acaaaatgag tgaatcatac tttaaaatat gtctatatat at 472

<210> 7149  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-G11  
 <400> 7149

gggcgaagcg aagaggcggg tccagcggat ccaggaggcc tactccgttt tgtccgacaa 60

ggggaagagg gccatgtacg acgcgggct ctttgatccc ctcgacgacg acgaccagga 120  
 tttctcggag ttcattgcagg agatgctggt gatgatggat agcgtgaaat actagaagcc 180  
 ggacacgctc gaagacctgc ataagatgct ggatgacata gtcaacgggt acggcggttag 240  
 ccgcgccact gctgggtgctg gtggttagcgg aggcgggtggt ggtggctgct gtagtcgcgt 300  
 tccagcggat gccaaaccgca gaactcgtgt cgcctcttac acgcagcctt cgctaagggtg 360  
 atggacgtcc cgggtgctcgt gacgtgcatg caccgctgca cttgtacgat agagatcaga 420  
 gcaagaagag agcaaccag 439

<210> 7150  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-017-Q1-E1-G12  
 <400> 7150

ggggacgtaa atgaagataa atggcagtgg ctgtacacac agatgaacgt tcgtgcggta 60  
 gggcgctcgg agactcaaga actgctccgc gtccatcctc gacatcaccg gttgtgtcac 120  
 cagcaatgac cggctgattg tatcgctgac tggaaactgca tgcacccatg ggatacggaa 180  
 gcgagtatga cactgggaac acacgctaata aataatctgc tggaggttagc tactcacatc 240  
 tgttacacga gacatgctag atgaccatgt aaacgtatcc gtgggcaata tcttgatgct 300  
 gga 303

<210> 7151  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-017-Q1-E1-G2  
 <400> 7151

gggctcaggc gatggtcnaa tggataactc cttagtcaca ttgagctcat tatgatgatg 60  
 cattaccgag tgggcccaga gatacctctc cgtcatcagg agtaacaaat cccagtctcg 120  
 atccgtgtca acccaacagt cactttcaga gatacccata gtgtaccttt atagtcaccc 180  
 agttacgttg tgacgttttg tacacccaaa gcactcctac ggcacccggg agttacacga 240

tctcatgggc taaggaaaag atacttgaca ttggaaaagc tctagcaaac gaactacacg 300  
atctttgccc tatgcttagg attgggtctt gtccatcaca tcattctcct aatgatgtga 360  
tcccattatc aatgacatcc aatgtccata gtcaggaaac catgactatc tgttgatcaa 420  
cgagct 426

<210> 7152  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-G6

<400> 7152

atgcccgggt cgacgggtaa gaaaatagtt cagagccaca tgcaaacttt caaaattatt 60  
gggcttatat ctatcttata gtaaataata acccaattca aatagctagt gaattaattc 120  
aaaggcccaa gaataattat ttctgtgatt ccaaaaatat tggtttgagt tttagctctt 180  
gccaatattt tcagagatta gcaggaacat tttgttgggg tcatttgaaa atattttaat 240  
gttgatcatt tttaaaagat ttctgaggct tgagaattcc ctcaattcaa tttccttgaa 300  
tttaagatga tgcatggatg catatgcaat gacaagcaaa ggccaaagct agggctgtga 360  
cagccatgct ggagtccgga ccgcttccgg agcctgctct caacgccctg gcctctctag 420  
acgccagctg cccgcggcat gcatgcat 448

<210> 7153  
<211> 457  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H10

<400> 7153

ggggcaatag agaaggaatg ggaaaagaag gggtactttt attttcattt ttcccttaaa 60  
agatagactt tgaaatagga gtcttggaat aatgctgaat tcaaagggtt atttctttct 120  
atagtataag aaagaaataa aatttatctt tatttctata gtataagaaa aacaaatagt 180  
ataagaaaaa caaatcgaat caaatcatg gatttaccac gacctcgggt gtgactccat 240  
agataaaaat gggaaatttc tctcttcgag accattgaaa aagggcattg aacgagaaag 300

aaatcgtcca cagatgataa aactatcata tgccttgga agtaatatga ggtgctcgga 360  
aatgggtgaa gtaattgaat aggaggatca ctatgactat agcccttggt agaattccta 420  
aagaagaaaa tgatctatct gatactatgg atgactg 457

<210> 7154  
<211> 61  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-017-Q1-E1-H2  
<400> 7154

gacgggtaga atgatctttt gatccacagg gatgcggaga agtctgggca caaccagtaa 60  
g 61

<210> 7155  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-017-Q1-E1-H3  
<400> 7155

gggtcgaggc gatcgtctac gtcagcggcg atggcgtcct cgtggagctt gtgaatggga 60  
ttctgcanag atcagactgg gaggaacaa taaaaatgca attggggtag ttccagctgg 120  
cacaagaaac ggcatggcca aatcgcttct gcatgctgcc agcgagacgt gctcagtttc 180  
agacgccgta ttgccatta tcagaggcca caagcaggcc ttggatgttt gcactatagc 240  
gcaaggggag aagattgttt tcagcgtgct gtcaaccacc tggggtttgg tggcggatgt 300  
tgacatcgag tccgagaaat acaggtggat ggggagcgcg cggttcgact tttatgctct 360  
ggttcgcata atgaacttgc gccgataccg cggaagtgtc cacttcgtgc ctgccccggg 420  
ct 422

<210> 7156  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H6

<400> 7156

gacgggtaga atgatctttt gattcactta tttttagtag agtgtgggca tatcttttgt 60  
agaaagaatt aaactctctt gcttcactta tatctattta gagagatgat aggaattggg 120  
cattcacatg gtttagcata aaatcctaca taaaacttgt agatcactga atatgatgtg 180  
tttgattcct tgcaatagtt ttgcgatata aagatgggtga tattagagtc atgctagtgg 240  
gtggttgtgg attgcagaaa tacttgtggt gaagtttgtg attcccgtag catgcacgta 300  
tggtgaaccg ttatgtaacg aagttggagc attaggtatt tattgattgt cttccttata 360  
agtggcggtc ggggacgagc gatgggtatct tctaccaat ctatccccct aagagcatgt 420  
gcatagtact ttgttttgat gact 444

<210> 7157

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H8

<400> 7157

cgggtacctg cacaagtgtc aaaggctttg aggtcgttcc tgatcgatcg aattctcagc 60  
aaaggatacc tacaagccta cagcattact agtactagca tccatgtgat gcacatgcat 120  
gctgcatata tatgcatgaa ctttcaactg gagataactc agatgacatg catgcagggt 180  
gcatacatgg aacttgagat agggaaaatg tttcgtgttt tcttctgagt ctatgttttt 240  
ttcttctgcg tttatgtact cggtttcctt acggccatgc tcgaaacttt ttcaagggga 300  
gaccgggctc ccataactct tttctggacc gtccttttcc tgctgggctc tttcggccgt 360  
ctgaggacac ttgctggaca taaggccttc aagataatat tctctgtgca gtgggcctgg 420  
t 421

<210> 7158

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-017-Q1-E1-H9



<400> 7158

gggtaacact gttagacgac gatttgactg acgtacgttt cgatgctgaa ttttcagtat 60  
ctctctgcat gctcactaaa tacgtccaca acagcatgct gacacgcgct atgacgtggt 120  
acattatatt acatgagtct cgattagtat catctgtcta gaggagtatg attcacttgt 180  
catacactgc catcctgccc attaaggagt agttgatgca aatatatatg acggcatatg 240  
ctcgaacgaa taaggatgct gacgctaagt aagatgatta cacaacttca accaattagt 300  
actaaatgca gtaacatgca ccaatcatgg ccaattgatt tggacacaca cagtgacaaa 360  
ttggtcgaag ttgaacatcg acttgactaa accacatca 399

<210> 7159

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-A10

<400> 7159

gacagccaac tggatcgtct gataaccac aagtataggg gatcgcaaca gttttcgagg 60  
gtagagtatt caacccaaat ttatagattc gacacaaggg gagccaaaga atatttgtaa 120  
gtattagcag ctgagttgtc aattcaacca cacctggaga ttaattatct gcagcaaagt 180  
gatcaatagt aaagtagtat gatagttttg atatcagtag cagcagcaat agtaatggta 240  
atagtgatag cagtgatttt gtagcaagtg caacagtaac gatagcagta gtgacttggc 300  
aagaacaata tgagagaaat tcgtaggcat tggatcgatg 340

<210> 7160

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-A4

<400> 7160

cggtcgtaga tatccggtcg acgcggccgt tatatgatga cgtgggagca tgatttattt 60  
attgattgtc ttccttatga gtggcggtcg gggacgagcg atggtctttt cctaccaatc 120  
tatcccccta ggagcatgcg tgtacacttc gttttgatga ttaatacatt ttcacaataa 180

gtacatgagt tatttatgac taatgttgag tccatggatt atacacactc tcaccctcca 240  
ccattgctag cctcccggtg accacttaac tttcgccagt aacatacacc caccatatac 300  
tttcctcaaa acggccacca tacctaccta ttatggcatt tccatagcca ttccgagata 360  
tattgccatg caactttcca ccattccggt tattatgaca tgcttcatca ttgtcatatt 420  
gcttttcatg atcatgtagt tgatattgta ttc 453

<210> 7161  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-A9  
<400> 7161

gacggggatg gaaaaactgc gtcgactcac taccagcgcc tctccgcgat ccaaatectc 60  
ccgggaaagt tcttggttga tctcttctc ctcgaccgcc tcccagggtc ttgggtgtagc 120  
ttttgccact ctcaccagga gatttcatgt ctgatcttga cgttcagatc ccaactgcct 180  
ttgacccctt tgccgaggcg aatgctgggg acgctgggtg agctgccgga tcaaaagact 240  
acgttcatgt acgcatccag cagcgtaatg gtcgcaagag cctgatcact gtccagggtc 300  
tgaagaacga gttcaactac cgctagattc ttcaagaacc tcaagaagga attttggccg 360  
ccaagggtac agttgtccaa gacacagatc ttggacaggt catccaactc cagggtgatc 420  
agaggaagaa cg 432

<210> 7162  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-B1  
<400> 7162

ccgggtcgac gcgggatatg tattttgctt ggagcgtctt gtatgatatt agtattttct 60  
ttttagttaa ccacaatcaa cttttctgta cacaccttc gagagaagcc ccacttgatt 120  
ggaatttatt agaatactct atgtgcttca cttatatctt ttgagctaga tagttattgc 180  
tctagtgtc acttatatct tttagagcac ggctgtggct taattttgta gaaattgtta 240

gtctctcatt cttcacttat attattgaga gtctcttaga acagcatggg atttgctatg 300  
 gttataaaat tggctcctgaa tggtaggcat ccaagttggg tataataaaa cctatcatag 360  
 gaagtgaatt ggatgctatg atcaatttga tacttgataa ttgttttgag atat 414

<210> 7163  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-B10  
 <400> 7163

gggtcgacgg gtaaggtaaa gattcgatgg actatggaat aaggagtggc aagagcctaa 60  
 gcttggggat tcccaaggca cccaaggta atattcaagg acaaccaaga gcctaagctt 120  
 tgggatgcc tggatggcat cccctctttc gtcttcgttc atcggtaaact ttacttggag 180  
 ctatatTTTT attcaccaca tgatatgtgt tttgcttgga gcgtcatgtc attttatttt 240  
 gttttgcttg atgtttgaat aaagtaccaa tatctgaagt tcttaaagt tagagagtct 300  
 ttacatagtt gcacaattat ttgactagtc at 332

<210> 7164  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-B11  
 <400> 7164

gacggggcat gaaatagtta gtgattgtct tatttatgag tggcggtcgg ggacgagcga 60  
 tggctctttc ctaccaatct atccccctag gagcatgtgt gtagtacttt gtttcgataa 120  
 ctaatagatt tttgcaataa gtatgtgagt tctttatgac taatgttgag tccatggatt 180  
 atacgcactc tcacccttcg accattgcta acctctctag tatcgtgcac ctttcgccgg 240  
 taccatacac ccaccatata gcttcctcaa aacaatgacc atacttacct attatggcat 300  
 ttccatagcc attccgagat atattgcaa tgcaac 336

<210> 7165  
 <211> 453  
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-B4

<400> 7165

cggggtcgacc ggtcacggta actgcgacga gctcattgta tgccaatctc acattgcatg 60  
 gtacgatcta tgtaagataa aaacaaataa cagacacaat acattagtgg aaatagcata 120  
 aaataacaaa aagaatgtac tgtcagaagg ttcatataaa ttggtaccgc tgcaaaaaca 180  
 aaagaaggct ggaagtagat gccgaacagc gtggcagtag aaaggctggc ccggcaccgt 240  
 gagttgcagc atccacattg tgcttctctc attctacaca gaacgtgttg aactctaagt 300  
 tgaattgtac atagtacaat acacagatca tacatataat acatcatagt gataacctat 360  
 actggcaata cccaatcaat ctattttcta tcatctacgt aatacaaaa tgccaatgac 420  
 aatggcaatg cccgtctaata ctaaacctgg gaa 453

<210> 7166

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-B9

<400> 7166

cgggccgacg ggacgatgat cttttctctac cagtctatcc ccctaggagc atgcgcgcag 60  
 tactttgttt tcaatggctt gtacatTTTT gcattaagta tatgagttct ttatgaccaa 120  
 tgttgagtcc atggattata cgcactctca cccttccatc attgctagcc tcttcggtat 180  
 cgtgcattgc cctttctcac cttgagagtt ggtgcaaact tcgccggtgc atccaaaccc 240  
 tgggatacga tagactctat cacacataag cctcattata tcttcctcaa aacagccacc 300  
 atacctacct atcatggcat ttccatagcc atttcgagga tat 343

<210> 7167

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C11

<400> 7167

cccggtcgga cgggaggttc aaccatgtcg tgtccaacgc cgtggacatg aagctcaggg 60  
atgaccttga gaggtctcaag aagatcgggg accatcgtgg tctgcgtcac tactgggggtg 120  
tgcgtgtccg cggtcagcac accaagacta ccggcaggag aggaaagact gttggtgtct 180  
ccaagaagcg ataagctgct tcacaaagat tcctcatagc tttgctacta ctgtgttggt 240  
ccatttccag aatcttaagg gagtgttctt atttagatga ttaccttggc tgatgttttg 300  
ccctagataa tgttttggtt ctgga 325

<210> 7168  
<211> 98  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C12

<400> 7168

gacgggaaat tcacatgat gagtagcaca ttatcgatc gcagttcacg gatgtccatg 60  
tgacgctcgt cagtctcaag caccatcgta gtctgctt 98

<210> 7169  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-C2

<400> 7169

cgggtcgacg ggcaaaacaa atcactggat actttcagcg acgacgttga tgagctgaac 60  
ttcagagtca aaggtgcgaa ccaacgggga cgccggttgc ttgggaagtg atatcagagt 120  
aggagtcagg ctgtgtggaa ccaactgtgct gccatgcct ttgacagtta attttgacta 180  
tgctgtggag cctatagtgt gtttctgctg ctatattcct atttcataac tgttggtttt 240  
ttggcaaata gtcatttct tgtattgtat tgtactgtat tgtattcggg tccattgtat 300  
tagtatgttg atgtttcctg attttccttg ggttgatga caactaggtc agttactggt 360  
gttactccac atagccacct tcttttttgg acatgtatgt tttgctgctg taat 414

<210> 7170  
<211> 432  
<212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-018-Q1-E1-C3

<400>      7170

```

gggtcgacgg gagcagcggg caggaccacg ggcattggctg ggtagtgaca tgtgcgtaag   60
caatgtcgag cgtggcggat gacgccaaga tgagattctc catatcgta tttcctctct   120
ctctctctct accaatcctt cttgcttccc ctctgtctct ctcaatgcca ctatatgcag   180
gttctgacat gtgcttttgt ttgatcccg cttgattttt tctttggtaa gattcaatga   240
tggttgatgc aagcccatgc ttctcacaag ttggattgaa gtttgctggt cctctatttg   300
tactattgtt tccttaccaa gtactatcag tactggggta gaaaacactt acctattaca   360
tagttctttg ctgacagccg aatgtgatgt ttgaacgggt tcccctatat gcaggaagta   420
caatttgcac gt                                                    432

```

<210>      7171

<211>      242

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-018-Q1-E1-C4

<400>      7171

```

cgggtcgacg cggaggcgag agcgtaacct cagtcaatcg tgggttcggt ctctgtggctc   60
ggtcaccaca gtagtcgtga aatacatcag ctactactga tgtcatcggt gatgtgcatg   120
actaattagt gacaaataat gtggcggaag tctaataatga actcaatcga ctttgataac   180
ttagtaccct attcatttac acctgttcat actgttcaag ccataccac taactgttca   240
ct                                                    242

```

<210>      7172

<211>      239

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-018-Q1-E1-C9

<400>      7172

```

gacgggaagg ttaacaagct gattggcctg atagtgaagt ggctgaaacc cggtagggcat   60

```

atcttcacca gggagtctcg ctccaccac tctggggatt cgaagaggaa tgtgaacccg 120  
 actcactact aggagccacg gttttacaac aacgtgtcta tggaatgcc a ctcctatgaa 180  
 cgtgatggga cttccttcga gccttaccog gtactttcca tgtgcatttg agtttatgt 239

<210> 7173  
 <211> 321  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D10  
 <400> 7173

acgggacaac tagtgtctcg gagggcacgt tgcgcctcaa gtgcttcagt atcacgtcgc 60  
 tgttggtggt gacggagagc atcagtgtct tgcccgtctt ggtggtggca tgctcgctct 120  
 tcctcttatt ggcataatgca tttccgttct tgtgcttgcc aaacgtagct tgattttggc 180  
 gatgtcgatg ttctttctct tcaggttgct cttgtgtagc attgccatgt agagaagtgc 240  
 actttgggtg atgggtcttg catgctgtct gacgtatatg ttggtgtgct tgatccagat 300  
 atgggtgttat cggacatggt g 321

<210> 7174  
 <211> 119  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D2  
 <400> 7174

tcgacagggg agttcatggc cggctgattc catcctacta ctgtacctac tatacctgta 60  
 gttcaccagc actgctgcta cttcagtagt catccttgaa cactattggt ctcaatatt 119

<210> 7175  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D3  
 <400> 7175

cgggtcggcc gggatgggca cggtagcctg gatcgtcaac tcagagatct acccgctgcg 60

gcaccgcggt gtgtgcggtg gcgtggcggc gaccgcgaac tgggtgtcca acctcgtagt 120  
 ggcgagtcg ttcctgacgc tgacgggggc catcgggccc gcgtggacgt tcctcatctt 180  
 cggttgctg tccgtggcag cgctcgctt cgtgctcgtc tgcgtgccgg agaccaaggg 240  
 actccccatc gaggacgtgg agaagatgct ggagaagcgg gaggtcaggc tcaagttctg 300  
 ggcaccgcgt ggccgcggca gcaagaacga cgggggtgtga gtgtcatccc taccttctcc 360  
 atttagcgcg cgaacgagac aatttgtggc catccccgtg attggaattt cgatttgtag 420  
 gc 422

<210> 7176  
 <211> 327  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D4  
 <400> 7176

cctgcattgc atcttccatg atgagaacga gtctgagcag gtcgaggagc aagatcttca 60  
 tcggtggtg cacgcaccat ggcccatcgg tatcgatata ggtgtgacag tccttggggc 120  
 cacaatcgac atattggaga ggaagtgtga tgagcatttt gccatccatc aggagaaga 180  
 ctcaaagctg ctcggtgca tgattgacga ctacccgaa gagtcgccgt cactagtgtc 240  
 cattgagagc ctgatgcccc tcaaggaatg ggcagaggac ctctacgatt cagtcatgac 300  
 acagccagcc tgcgggttca tcattgc 327

<210> 7177  
 <211> 80  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-D7  
 <400> 7177

ttcgcggtc gacgggataa tctagagtga gtcgtttag attcttctga catgtttgat 60  
 cattatgcga tccttgacac 80

<210> 7178  
 <211> 336  
 <212> DNA



<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-018-Q1-E1-D9

<400>      7178

gactgaaact ccagcaactc ctcttaacac gacgcaccta cggatgcctt gacgcgtcat    60  
cgctagctgc tccgtttgca tgttgccacc acgccggctc atcttcgcga acattgattg    120  
agacgagagt cccttagtat gtgcttctcc gtctacacaa ggttgacact gcatcgctg    180  
tggtcatcat cgctgacaac tacatcgctt cccagcattg tcgccgccac caccgctcat    240  
ggctcttggtt aatgccaaac ggttcttctt cgcagccact agcgttgcca tgcgactaca    300  
tgtggatgac tcatgtttaa tccgccacat cgagta                                    336

<210>      7179

<211>      417

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-018-Q1-E1-E1

<400>      7179

cgggtcgacg cggctgtgat gtattagtga taatattcga cgatgtactg acgcatgaga    60  
tgatttactt ttgcttattg aatgcatgct aatttgagtc ctataagata ttgtgaaatg    120  
tatatcttgt gttgctcaat atccaagtgg cggttcatgt ttgcagggtta caccttcgag    180  
tggcctatgt tttgccggag tgttgattca tttccgttcc ggcaaatttc aggcgctcga    240  
tatgtcctat tttagcaaag gtcatgtcgg atttttccat gaattttggc atgacttgtg    300  
tcagaatatg taggaaatat cgagtgcctt ggatttggtt gagtatcttg gtagttgtct    360  
tcgattgatt ttcaattaat gttttaacta tgaacatang aaatgtctga cgacgag        417

<210>      7180

<211>      70

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-018-Q1-E1-E12

<400>      7180

agtcccgggc agacgggtaa gttatacatt cttacgaaac gcaaattggc aataagtact    60

ctgccaaaca

70

<210> 7181

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-E2

<400> 7181

cgggctcgacg cgggtacaatt caatagttac aatcattgtc gaatcccaag atgtatacaa 60  
ggtctatagt acttcacaac atgctcaaac tcacataatc ccagtcaaatt gagaatctaa 120  
atgcatttca tagttattac tttgtaggat gcagcacaaa caaccaagac tctacatcag 180  
ccattataga agcaacattt tgacatatcc catttgtgtga atgaaacgtg cagagagagc 240  
ttttgaagat ggagtatata gggcgggaaa gattgtatgt atgtggacga gagagtagga 300  
ggcaaaccaa acaagacaga aaaaagcgaa aaagaaggag aaagagatag gaaaaagtaa 360  
ggtctgtgac aaagatggag acatgtaata tacatgattc ggtatacgtg gaaggagaag 420  
agaccacatg 430

<210> 7182

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-E3

<400> 7182

taagtagact tatgcaataa gtatatgagt tctttatgac taatgtgagt ccatggatgt 60  
acgcacagtc atccttccac tttgctagcc tctgttttac cgcgcaactt tcgccggtag 120  
catgcacca ttacttacct tcctcaaac agccaccata cctacctatt atggcatttc 180  
catagccatt ccgagatata ttgccatgca actttccaca attccgttta ttatgacatg 240  
ctccatcatt atcatattgc tctttgcatg atcatgtaat tgacatagta tttgcggcaa 300  
agccaccttc atattcattg catatcccggtac actgcccga gaggaattca tatagagtca 360  
tatcttgttc tagctttgag ttgtaattct taagttgtaa atcaataaaa gtgtgatgat 420  
cttcataatt ag 432

<210> 7183  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-E4  
  
 <400> 7183

ttagattcat gcaagtgggt ggttgtggat tgtagagaca cttgtgttga ggtttgcaag 60  
 tcccgtagca tgcacgtatg gtaaccgttg tgtgacaaat ttgaagcatg aggtgtttct 120  
 ttgattgtct tcottatgag tggcagttgg ggacgagcga tggctcttttc ctaccaatct 180  
 atccccctac gggcatgctg agtagtactt tgcttcgagg gctaataaac ttttgcaata 240  
 agtaaatgag ttctttatga ctaatgtgag tccatggatt atacgcactt ttacctttcc 300  
 atcattgcta gcctcgctcg gtacgtgcat tgccctttct cacctcgaga gtt 353

<210> 7184  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-018-Q1-E1-E5  
  
 <400> 7184

ttgacgggtc caacgctaaa ctttaaaaca gacactatct gcttgtgcac cgggtccgga 60  
 cagtccgcgg acaatgatac agaaatcggc aatccaacct tgtctttaa cgtttgtcct 120  
 tattttctct taaatacaca acattcaaca taatcataga aaatggcata attcatacat 180  
 aaataacatg caaatatcca taagggcatc tccaacgtag gcctcaaac gaacaatata 240  
 cttgcccgtg gactggctct gattgattca tggacattgg tacgggagcc gtccatccga 300  
 ccatgtcccc tagatgtctg cttctgtttc tttttttaag ttttcgagct caaaataata 360  
 gcatagcaaa tctgogatca gagagnatat tcagatggga caattttt 408

<210> 7185  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-E6

<400> 7185

gtcgacgggt gcaccaactt cgcgagctct ctctacacat ttcattcaca cattgggatg 60  
tggtcaaaat gttgctttta taatggatca tgaagagtta tgggtgggtt gttgcatcct 120  
acaaagtaat agctatgaga tgcattttaga ttttcatttg actgggatta tgcgagtttg 180  
agcatattgt gaagtactat agacctcgta tacatatcgg aattcgacaa tgattctaag 240  
tactgaattg tagaaacat tacattcaga atcagtagcc taatatattt agttctatcc 300  
atcacatata cacacattct catcataagt ttgatttccc tcaatatctc gcacacacac 360  
actct 365

<210> 7186

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-F10

<400> 7186

acggggatag aatcgggttc cacttctctc ctcacctcgc attctctact caggctcaga 60  
tccgatagcc ccccgctc caaccccgct ggcgccaatc ggaatgtagc tctccccag 120  
tagactagtt taagagcaga agaatatagt taatggttcc tggatgagaa gtggaaatgc 180  
tactggctgt ggaaggagga ggtttcttct catcgtcagc ttcaggatag agtcatggcc 240  
ttgctctttt gctgcttggc cggaagaag acgagaagcc tgtcaaggca tggagtcagt 300  
accgagtagt cgatggggaa gct 323

<210> 7187

<211> 321

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-F11

<400> 7187

ccgggtcgac gggctcctga tgttggtggg ttcggtaaag tttaccaggg agagatcgat 60  
gggggcacaa ctaaggtggc tatcaagcgt ggcaaccct tgtctgagca gggcatacat 120

gagttccaga ctgaaattga aatgctgtca aagctccgcc accgccatct tgtgtcgctg 180  
 attggttact gcgaggacaa gaatgagatg atcctgggtct atgaccacat ggcccatgga 240  
 actctgcgtg agcacctata caagaccag aatgcgcccgc ttagctggag gcagcgtttg 300  
 gagatctgca ttggtgcagc c 321

<210> 7188  
 <211> 89  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-F12  
 <400> 7188

gagcatggca tatactttgt ttgtatagtt aatagactta tgcaatatgt atgtgagttc 60  
 tttatgactg atgttgagta catggacta 89

<210> 7189  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-018-Q1-E1-F2  
 <400> 7189

cgggtcggcc ggggtgacggc tcaagagcgg acggacgcgg tgctccggc gacaagtccg 60  
 acgacgacga atgacctccg taagatactg ctgactgcaa catgaacacg aaccgtcgga 120  
 ggagccgtag tccagttgaa gtccacgatg accactctaa agggagtgac ggttatggac 180  
 ggaaagagaa catgagagat ctacagaatg atagtcatgc cagaccaggc agaggtcatg 240  
 aacttgtcag gcattctgat atgcatgcct atggggcttc acgtgaatcc angatgcatg 300  
 atgattatag gacgtaccat gatgtacgtg ctgatgatga aaggagccct ccttagaact 360  
 tcccggccaa atcgggagtc aagggtgac acttactatg attcctcaaa ccgtgatggc 420  
 acat 424

<210> 7190  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-F3

<400> 7190

cgggtcgacc ggggtagaga tcgcaacata gtctatcaat tcaatgcccg gggcagaaat 60  
acaaatggta gaggagggca gcgcaactggg cgcggtcaca attcggtcta ccgtcaggtt 120  
gatgttgag gaggcaaaac tttaaaccgc aagatactga gacagtgatc aagaagcgac 180  
agagtgagga gaatgattct tcagggtcca aagatgatag ccgtgactca aagaagaaac 240  
aggcagagaa ggatgttgct aagactctgg cgagggtga gcatcagccc cgcggtacac 300  
aatgaatttc ttttcatgga acaatcgcg gcttggaac ccggagacag ttcgagaact 360  
tcatagcctt atgaagatgg aagggcccg cttggtcttc atgtgtgaaa c 411

<210> 7191

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-F4

<400> 7191

ccggtcgacc ggggtgtcaa aataaagacg tgtgactgca cctgtcgaaa gtggaatatt 60  
tctgggttgc catgcatgca tgcaattgca gtatttgagc gcactgggag gtatgcatat 120  
gacttctgtg tggagtattt cagcagaaa cgggtaccgt cgacctattc aatgtccata 180  
aatccgatac ctgatgttac cttaacggac aattctcaga gtccagcgac attaccattc 240  
tcaattcaaa ctgcgcgacg ggttggcagg ccgaaagaga aacagctgat ccgcccata 300  
caattaacat ggcagtggc tgcagcagat gtaaaagtta tggtcacatc aaagcaactt 360  
gcaaaattcc tatcagtggc gaagcccttc cgccttgcca ccagctgagc tcttcgatgt 420  
acacagtaag gtgg 434

<210> 7192

<211> 351

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-F5

<400> 7192

gacgggtaaa acaattcctt cacataccgg acacgttctc tctcgatagc catatactac 60  
ctcggagatg gtgtagttta caagcgacct ctagtcagtc ttctgogaca catgcgcaac 120  
atbtcaccac accctacaag gaccatacga ctatactgtg ccagggtccc agtattttcca 180  
gcatcatgtg atttttgttt gattttaacg gctggatccg gcatgccgcc aaggtaacatt 240  
cacctccctg ggggtggggca tgcccctcct tgggttgac taggcctact catagctcaa 300  
atacatcata tatgatttga caaacgacct ctggacatca tttcaggtgg c 351

<210> 7193  
<211> 181  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-F8  
<400> 7193

acaggctaga ttagcacatg gtataggggg tcgtgtatag tttttgttgt tctagccttt 60  
gatctgattt aacaactagg ctggggagtc tagtgcgga tcactctgagt tcgctcccgt 120  
gggaaatcaa ctccggagtc acgtctcgga tgcactctgac tgattttaga tgggagagaa 180  
t 181

<210> 7194  
<211> 320  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-018-Q1-E1-F9  
<400> 7194

acgggacaac caaaagccta agcttgggga tgccccggaa ggcacgcct ctttcgtctt 60  
cgtctatcgg taactttact tgaagctata tttttattca ccacatgaga tgtgtttttc 120  
ttggagtgtg ttgtatgatt tgagtctttg atttttagtt taccacaatc atccttgctg 180  
tacacacctt ttgggagaga cagcatgaa tcggaattta ttagaatact ctatgtgctt 240  
cacttatatc ctttgagcta gacattagtg ctctagtgtc tcacttatat ctttttagag 300  
catggcagtg gttttatttt 320

<210> 7195  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-G10  
  
 <400> 7195  
  
 gacgggaaca tcaacttttc tgaccgtttg gagctgcggc ctaaacccttc ctgtaatccc 60  
 tggagcttcg tcagagcctt ttccttcccc acaggccaga gctcaattta ccttcgccag 120  
 agctctaaga taaggagaat cagctcagga taaaagggtc cgcactcaat tgatccgggt 180  
 caacacttcc tgtatctggt ttcggcttgg ttttgactcc ttgtaggggc tcatgacagt 240  
 cctgtagggg atacaaaagc tttccgagca gtagcggcag ctgggcggga gagttgggta 300  
 ttca 304

<210> 7196  
 <211> 305  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-G12  
  
 <400> 7196  
  
 acgggacagg gatcgaatac ctgcagcacg agaatttcat ggaatgagca gtcagttagt 60  
 caaggcaatg ccgagtctta gttttacaaa agtccaggaa gacaattgta cttcgtcaac 120  
 atgtgccatt tgcttgaag actacagtgt tggtgaaaag ataagggtgc tgccttgctg 180  
 tcacaagttc catgctgctt gcgtggacct gtggctcaga tcatggagga cattctgccc 240  
 tgtatgcaag cgagatgcac atgctggaat gtcaaatttc cctccatcag agtctacgcc 300  
 tttgc 305

<210> 7197  
 <211> 78  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-G2  
  
 <400> 7197  
  
 ggagtctcga ggagcccacg agataggggg tgtacgtagg tttctgttgc tctagcgggt 60



cgtcagggcg agcagata

78

<210> 7198  
<211> 244  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-018-Q1-E1-G4  
  
<400> 7198

gggctacgag aggacgacga gatcaacata gtgctgcggc gttgatggct gggctagctc 60  
catggtcaag cggctcgctg cattcttttc cagaggttgt atatgtagaa tatcagaagg 120  
agcacacatg ggaagatagg tcaacaggat tgtggccgcc cttccacagt ccgatgctga 180  
ttccttcttt taagactcgg gaatctgaaa taccaccgag aatgttttcc gtttctctgta 240  
gttc 244

<210> 7199  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-018-Q1-E1-G5  
  
<400> 7199

attccggggtc gacgggttcg cttataagcc atgaatcttc acaaattata gtcggtttct 60  
aagaacactt tttttaata attcccgtat tacaagtta ttatttttcc tggaaacttg 120  
gtcacatatg atgacacaat gtgaaggttt tccaattttt tgaatttttt atgcccgttt 180  
caaatgctgg tcaaaacggc gggcttgacc gttcctagct agtgggttgaa tcttggaana 240  
aattggatgt ttctcttatt aaatagatac ttatgtacct agaatgatt tttggaaaaa 300  
ataaatagca aactatgagg cagctacagt tcaaatttga cccgcttcct actgaatcgg 360  
ccgaaatttg tcttttcacc agagatggac caaagctttt gacaccaac cattttgtta 420  
aatgtgcaat aa 432

<210> 7200  
<211> 316  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-G6

<400> 7200

gacggggtcat actatattaa gtctttcaag aattgcatca ttgaccaatg ctatgcttgt 60  
 caactttttaa taaattttac tatttgtagt tttccgtatg tgatgtcatt acttaccata 120  
 agattagcct atgatatttc tcattatttt ctttttagttg gttgacataa gaaagtatag 180  
 aagcacaac tcatactaag cttattata taactctcac tcgattacat agatagatag 240  
 atcacgagac taagacttga caatagatca gactaagcct ttattcaact tgtgatgatc 300  
 atcattatttc attatt 316

<210> 7201

<211> 236

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-G8

<400> 7201

cgggatacgc cagtggaaact tttggcaatc gtgggtggcct tgtccctgcg cggtcgccgc 60  
 atttgacgtc cagtacatca tcgactagt atgtcacctg tgatctgtat gaataacttg 120  
 tgtcaaataa tacgggggaa atgactagt aagtcaaacg acctgtaact tgttactcta 180  
 atcttttgca catgtacatg ctaatcatgc cataaacacg aactgttcgc ttcaga 236

<210> 7202

<211> 282

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-G9

<400> 7202

gacggggaga cgggtaccgg gaccctgaac tacaacaagc aacatagcgt ggacatgcac 60  
 ctgctgtccc ctcaggtaga gaatcctgta tatggctggg aagacagaac cactgctgtt 120  
 agtactacat agataggcct gtaatttggt aactaattc tttttcctcc tctccctgat 180  
 gccaacggca aagccttggt cattattacc aatacgaact acagactgct tgtagcacta 240  
 gataacactt gtgtattcga tatttcgatc ccttgagttt tg 282

agcagcgatt gaagaagcag caggaccggt cgattcaaat ccaaagtta ctgttgctag 180  
aatcgtttgt tgactaagtt gacaagccct gcgtacgcgt caacttagta ggccacag 240  
tcagcctccc aaccagtgcg cccagatgt cagtgggagg aatcattttt ttgcgtaata 300  
aggaggcagt tgattgctg cgccaggcc agtggaggga gtaggggtggg ccggggaagc 360  
ctacgcgaca tcacagcggg ccacatgagg agggagcagg cagtctcgcc ggtgctagtt 420  
taggcggctg gagc 434

<210> 7445  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-F1

<400> 7445  
tccacgggca agaatatatg gaaaatgaag aagatgacga atttctgaaa ggtttcaagg 60  
ttgcgaactt cgagtacata gatgaggcta aagcttttagc agcaaaaaag aaggcacgca 120  
aaaaaacgg aactgaaacc gcatccaata aagcaaacta ttgggaagaa ttattaaaga 180  
cagatgcgtt gagcaagaag tagaagaaat tgctatggga aaangaaaaa gaagccgcaa 240  
gcagatggct gctgctgatg aagatgacat tactggcctg cacgagttaa gttctgaaga 300  
cgaagattac tcctatgatg atgatgtgtc ggataatgac acgagtttac cagcaaattg 360  
ttctgggagg aangctcagt attctaagaa aaactcacgt aatgtagatt cac 413

<210> 7446  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-F10

<400> 7446  
ttcgcgggtc cacggggaca gccaaatcaa ctacgaggag ttcgtcaagg tgatgatggc 60  
caagtgatcc agccgatgtt catgtccggt ggtattatta tttttaccgg ggaggaggaa 120  
attgtgcatt gcatattagt agtaaggaat gcggctctcg tttccttgct tttgccccga 180  
accagaagaa gcgtactagt agacgtagtt gctgaagagc actcatggaa tcctcctccc 240

<210> 7203  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-H1  
  
 <400> 7203  
  
 cgggtcgacc gggcacacac agaatatatc atctcttatg actctgatga tctatatcca 60  
 ggaagtaatt caggtggttg aaagctgaga tcggacttcc tggggacaaa gtctgcatg 120  
 tacgacaatc agaaaccata cgacggcgcc aagtccttga agagccgatc aagtcgccgc 180  
 tttgcgagca aacaaatcag cccacacggt tcaggcgata atcttgaagt tggacaggtg 240  
 tcatacaggt tcaacttcct caaatcaaga gggccgagaa gaatgcactg cagtatccag 300  
 tgcccogtag gtcagggcac cgcattccgat ccatccaagg agaagccacc gagcaactcc 360  
 agtccttgt ctctaaaaaa caaagcgctt cgggtggcacg aacacctgca gtgctgggtg 420  
 cttgaatttt cac 433

<210> 7204  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-H10  
  
 <400> 7204  
  
 acggggactc catctttgac atgggcttcc caccttacac gggaggggtc atgttatggg 60  
 gatattccat cggcgcaaaa tacatccacg gcaagttgca tgagtgtgcg aagcggtagc 120  
 gcagcttctt cgagccttgc tctacctcg ccgaaagagc atcaaagggg attcctctga 180  
 gtgcattagc atcaactcaa gtcaagtcgc ggctatatgt gattgtaggc ctggtacttc 240  
 tgtcagctga atgaaattat gccaccgagt tatactgcgc gatgaagggt gtgaactggt 300  
 gag 303

<210> 7205  
 <211> 265  
 <212> DNA  
 <213> Triticum aestivum

LIB104-018-Q1-E1-H11

<223> Clone ID: LIB104-018-Q1-E1-H11

<400> 7205

acgggggatga caacggtgag agagagatag agcacggcag tgggaaacta gctgtgtagg 60  
gctcagccgt gggaagctat ctatgtaggg cacggtggca ttgagatccc attcggcttc 120  
gtgctccatc tctgcctcac gcttccgcta ccattcgcag atgcagatcc cggcgcggtgt 180  
gcacatgtcc gtcgtcgtcg gtctgctctg cccggcgggc gttgatagga gcgttactca 240  
tccacggatg agccgtattc atccg 265

<210> 7206

<211> 217

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-H2

<400> 7206

tggaaaatag aataccagaa aaggtcagtg gtgttttgga gggcgccctcg tctgtatgta 60  
ttccatctgt gtaagttaat tcatttgggt gattgggttcg gctgtaggcg gtatatctca 120  
atacagtggg ggatttgtaa tgtttctggt tttgtgttcc ttgtgagatg aaataataac 180  
ttaacttgtt tataacatgc tcctcaattt tcttctt 217

<210> 7207

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-H3

<400> 7207

cgggtcgacc ggtacgacga cgaagaagag tagattggtg ggtgtctcaa gatatctgca 60  
cttccagatg tgctcccttt aaagcagtat ctgttgtctt cccaatattg ttgactagaa 120  
agtaagtagg gcaacaagta tgagaattta acttggctgt gttttcaaaa gaagctggcg 180  
cacctgaaag ctgattttgc atgtttttcc ccatgcatgt atgtaagctt ccaataagga 240  
accaacccat gatcttattg gtgatagcat tatcatcact aggtaagggt tatgatgtgg 300  
tgcttatttg ctttgtcaga atgaatccat tgtgaaagag atttgcaaaa caaaaa 356

<210> 7208  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-H4  
  
 <400> 7208

gcccttagtg gaggggtccg aaatcaaccc tatctcttgt ttccccacac atacggactc 60  
 taaaaatagc ctatacttat gtatttcgaa attacatggg cctggcccaa taataaggcg 120  
 acgcagcacc taaaatagcc tcagaacgaa atttatgaag tggcatgatg aggacatgac 180  
 taccttggat atgaccaaaa atattgcata tatgcatatt tgtcagggtga tttctagtgc 240  
 aaactattca ataatctatt tatgttatcc agaacaaaaa tacttcacac acttttgtgt 300  
 tttgtctaata tgcagggtga tgggacatth gtacaatcca catatgaaga taaggaacca 360  
 cgaaatttta atttccgtcc aaaaa 385

<210> 7209  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-018-Q1-E1-H5  
  
 <400> 7209

cgggcgtaat cagtatttcc ggggtgcactc atcgaccact gagttaggat tgtgacaatc 60  
 gctcgtcct tgatcatatc gtattgccct gaaaagcaag attgttctcg agcttaataa 120  
 cagatcggtg gtttgtgatt ttccggatat cttctctgga agtgttacta tgttgtcagc 180  
 tgaccgctat gttgagttcg tgatcaagtt ggatttcctc caaaccaccc ttctccgtct 240  
 gtctgcttg gtttgtcgt cgtcttagag ggtgtgcgtg tgttcatgtt ggagtgtgat 300  
 gtctgggcgc gtgcgtgtgt gtatgtatag gtctcggtagg tgtgggaggt gtccagtagc 360  
 tgcgccagag tgccattcct tgtg 384

<210> 7210  
 <211> 247  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-H6

<400> 7210

gtgaattcag tcttaactga tgtatcagca gatagatcga ctccacaatt atcctatact 60  
tatgtatttc gaagttacat tggctctggac cataagtaag gcaacgcagc atgtaagtta 120  
ccgtgagaat gatctttatg tgagtggcat gttgatgata tgactatctt ggatatgacc 180  
aataatattg catttctgcc tatttgtcag gtgatttcta ttgcgcacga ttcgatactc 240  
tatttat 247

<210> 7211

<211> 322

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-H7

<400> 7211

ttcccgtcga cgggtgacat cactacagct attgacaccc atgttgtacc cactgaagaa 60  
gtatccaatg atgactcatt atctacacgc attctcaatg aaactaccct tcaactatac 120  
acatttattg caacatcaac tcatataatc atctacatgt acataaaaac gatcaaaaaca 180  
caattcataa tgataataat gagaatgatt agatctacat taaatattgc taatgctcat 240  
atatggacat tgccacgatc agaaaagata ataataccga tagcaaacat aatgataaaa 300  
atacctccaa cgagactgga cc 322

<210> 7212

<211> 348

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-018-Q1-E1-H8

<400> 7212

gtgacacaac ggcaggggaag actcggcagt tgtttcgac ggcgagggga gtacgactgt 60  
acgaggggtt actggttcgt ctgctgtcgc cggagaataa cagcaggtgt gggtagtag 120  
agggatggct aggcctgcga tgggagtacg gtggggcggt gaggcctgcg cggcagcaga 180  
gccggccgtg gggaggaggg agcaggcagt cctgccggcg cttgtttgag cggttggagc 240

aggaagagca gagatagaag aagcatgacg gccgttgat ggacatccaa cagtcagtgc 300  
 ttgtgcctca acctttttttt aggaaagcct caaatccatg gaaaacag 348

<210> 7213  
 <211> 233  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-018-Q1-E1-H9  
 <400> 7213

acgggtaaca ctatcatctg actcgatatca ggggttgtag attttttgtt cctggaattc 60  
 gccatcgaat ttcggttttc ttatgcaatg tgccaatgtt gactatcccg ttcaactgtt 120  
 cggcggtgac ctgggaccgt agtcaattg caagcggcac tctgtttggt gattttgaag 180  
 taaatgctgg tacaacagat gccggtttat taatcattca gtaggggtat aca 233

<210> 7214  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-A4  
 <400> 7214

cggctctaga atcccgggtc gaccgagac tccaacactg ctcatattcat gtctttgcc 60  
 ttgtagccgg ccatgaacta caacacattg gcgggctcgc tcacatgcaa tgacggcggc 120  
 cgaccattg tacacaacaa cgtctaggca tctccacgac acgtgcgacc gcctgtgttt 180  
 tgcttttagac ccgatggcac acctgataac aaattctttc caccacgaca agcaatcata 240  
 cttggttttc tccgatcgtt ttatgatgag acacaagtac atgggcttaa gcacctaga 300  
 ttgattcttc tcggtgtagt tgtgtacgta tacaaaacct aatcacatat gtatacaaaa 360  
 caccctgatc ctttagatta aacatttctt ttggctacac atcacgtcca catgagacta 420  
 tatttaatgg caataaggtg ttggctct 448

<210> 7215  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-019-Q1-E1-A7

<400> 7215

attcgcgggc cgacgggacc atttacggg accctctcaa ctttcttgca catgctctgt 60  
ggatgaaatg atgataccat gccaaactttc aaccttttca gagttcatTT tgaaatgctt 120  
tccaatttaa gggcctaaaa ccccaaatta atataaaatg cacggaaaat aacaaatgaa 180  
gtcacaaagt attgaaaatt gatgatgtgg ctttgaatgg tgcattttga acacacaaaa 240  
agtcacgagt tcaaataagt tttaaaaaat caaatcccta tgtaacagac gagtttccgt 300  
atgaaatcct gatactttga aagagattgt ccgttttgta cacgaagtgc atccaccttt 360  
tgccggggagc ctctcaactt tcttgcacat gct 393

<210> 7216

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-A9

<400> 7216

gggtcgacgg gggaaagcga cgagcatagt gcgccgtgca ctgtatcgct ggccagacca 60  
tgcccgtgct ctctacggcg agctccggcg tcggtgagcg ccagggggaa gttaaggggg 120  
tggagacgac gatgggtggcg aagcatggca tgcttgggcc ggttgggtaa ccagcacgcg 180  
ctcaacagag cactacgcgg cacacagagc gcgtgttttg catgccagca caccgggacg 240  
aacgtgggtca ccgctgaac cgtgacatca ggccacccta agcgctaacc tttatgtctg 300  
gcgtgtagtc cttagtagtt tgaagtgtta ccatggtttg gcttggatcc aggtgcagtt 360  
gaaatagatt tgtactgctg gcaagtttct gggc 394

<210> 7217

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-B1

<400> 7217

gggtcgacgg gatatgggtga tattagagtc gtgctagttg agtaattgtg aaattgagaa 60

atacttttgt tgaggtttgc aagtcccgtg gcatgcacgt atggtgaacc gttatgtaac 120  
gaagtcggag catcaggtgt ttattgattg tcttccttat gagtggcggt cggggacgag 180  
cgatggtctt ttcctaccaa tctatcccc taggagcatg cgtgtagtac tttgttttga 240  
tgactaatag atttttgcaa taagtatgtg agttctttat gactaatgtt gagtccatgg 300  
attatacgca ctctcacct tccatcattg ctagcctttt cggtagcgtg cattagcctt 360  
tctcacctcg agagttggtg caaacttcgc cggtagcatcc aaaccctga tatgata 417

<210> 7218

<211> 366

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-B5

<400> 7218

gggccgacac tggaaccaac agtgggtgcag agattagcga gatatgggggt ctgacggcgc 60  
cgcgccaccg attctcgcta taccaccacc atcgggggtca agccatcaga aaaggattga 120  
agggcatgag attgggtcgg tcaggtgtcc agcgtgtagc acattgtgtg gtttccctata 180  
tgatgatgag attggttgat tgattctgcc tgggttgggt ggttggctgg tgttgataac 240  
tgtcctctgg ttatacaggt ctgctcaaag tgtagcgtga ctgagtcgag cggtaagaat 300  
tgaattgca tgggaggaac tctgtttttg tcgagtcgga aaaggcgggt cgggtgcgcg 360  
ccttgt 366

<210> 7219

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-B7

<400> 7219

cattcgcggtg tcgacgggga cgcagaagat cgtgatcccg ccgggcaact tcttggtggg 60  
cgcgctggag ctgtcaggcc cctgcacctc ctccatcatc atccggctgg acggcaacct 120  
cctcggcacc ggcgacctca ccgcctacaa gaagaactgg atcgaggtga tgcgcgtgga 180  
caacttcacc atcaacggcc acggcaccat cgacggccag ggccccctcg tgtgggagaa 240

gaaccagtgc agcaagcact acgactgcaa gatcctcccc aacagcctgg tgctggacta 300  
 cgtgaacaac gcgacgatcc ggggcatcac gctcaagaac gccagttct tccacctcaa 360  
 cctcttcaag tgcaagacgg tgctggtgga gaacgtggag atcacggcgc cggggaacag 420  
 cccaaca 428

<210> 7220  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-C10  
 <400> 7220

ttcgcggtc cacggggcct tcgtagacgt gccgaccatg ctccacacca acgacatcaa 60  
 catcgcgac caactggagg ttatcatcaa caggcggcat attaacatga tgcagcacat 120  
 gctctagctc aagtattcgc accttatctc gatctccgcc ttcaaaaacc cctgcgcca 180  
 ttccatcata ctccaggcac ctgtctctct gacacagtct gcactcgatg atgattatct 240  
 acgtagatta aggcacgac gtatacccaa ggatcgtatt cgacgactac atgttcctgt 300  
 acatgcgcca aatctacgag gccaaagtta cactgttcac agccaagtac gtaaagtccg 360  
 cat 363

<210> 7221  
 <211> 293  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-C11  
 <400> 7221

acggggctaa cgtagacgtg tcgaccaagt tctacaccat cgtcatcaac atcggttaacc 60  
 aactggaagt tatcatcaac aggctgtata tataacatgt tgcattacat gctctagctc 120  
 aagtattcca accttatctc gatctccgca ttcaaaaaac cctgcgacaa ttccatcata 180  
 ttccaggcac cttgtgctcc tgagcacttc tgactccag atatgattta cgtatattaa 240  
 ggcatcgacg tataaccaag gatcgtattc gccgaatata tgattcctgt aca 293

<210> 7222  
 <211> 202  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-C2

<400> 7222

gggtcgacgg ngatgttgag aagctgattg gcacgatagt gaagtggctg aagcccgggtg 60  
 ggcatatttt catcagggaa tcatgcttcc accagtctgg ggattccaac aggaaactga 120  
 acccgacgca ctaccgggag ccgaggttct acaccaaagt gtttaaagaa tgccactccc 180  
 atgaccaaca ggggaattcc tt 202

<210> 7223  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-D3

<400> 7223

ccgggtcgac attcctggaa aggagctggc tattacttca gatgaggctt taagtttggg 60  
 ggagctaccg aaacgtgctg tgattcttgg tggcggatat attgctgttg aatttgcttc 120  
 tatctggaag ggggttgggtg ctgaagtaga tctattttat aggaaagaac ttcctctaag 180  
 gggttttgat gatgagatga gaacagttgt tgcaagtaac cttgaacgaa ggggaatccg 240  
 attgcatcca gggacaaatt tgaccgagtt gagtaaaaca gccgatggca ttaaagttgt 300  
 gacagataag ggggatgagc tcattgcaga tgttgttctt tttgctacag gtcgtgcgcc 360  
 gaactccaat aggctgaacc tggaagctgt tggtgttgac gttgatcaaa tangagccat 420  
 caaggttgat gaat 434

<210> 7224  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-019-Q1-E1-E3

<400> 7224

cggggtcgacg ggatgggtcta ttactaccaa tatatcccc taggagcatg tgcgtagtac 60  
 tttggttttt gatgacttct aaatttttgc aacaagtaca tgagttcttt tgactaatgt 120  
 tgagtccatg gattatacgc accctttcac ctttccatca ttgctagcct ttcttggtgcc 180  
 gcacaacttt cgccggtacc atacacctac catatacctt cctcaaaaca tccatcatac 240  
 ctacctatta tggcatttcc atagccattc cgagatatat tttcatgcaa ctttccacca 300  
 tgtcgttcat atgacacgca ttacttttgt cacattgctc tttgcatgat catgtagttg 360  
 acattgtatt tgtggcaagg ccaccttcat aattttcata catgtcgctc ttgattcatt 420  
 gcatatcccg gtaca 435

<210> 7225  
 <211> 317  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E4  
 <400> 7225

tcaatgtaac ccgtgaagaa catgtgtgtc ttaacttcac tatgggagac agtatctagc 60  
 catgcatttt gatgacttgt atcggccatt cactattgca tctccggcat atacattatc 120  
 attcttcacc actgtcgtct ctcttattgc gttttagagag cacactttcc acgttcaagc 180  
 tttccattac catctacacc aataaatgta acaccaatag tacttgaaca gttaatccat 240  
 gttcaatacg acttctaaat taactgtgca catctttggg gtatactgag aacctccttg 300  
 tgaagcagca ttatgta 317

<210> 7226  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E5  
 <400> 7226

attcggggt cgacggggac cctgaagtag tagcagcagc tccatcacca tctccccct 60  
 gcttccttcc tcggatcgga gggggagagc gaccggccga ccaggaggaa gcggcggcag 120  
 gatgagtctc ttcggcctcg gacggaatca gaagacgttc cgtcccaaga aaagtgtcc 180

atcaggcagc aagggggcac agctccgaaa gcacatagat gcaaccctcg gtagtgggaaa 240  
 ccttagggaa gctgtgagggc tgctcctgg agaggatatac aatgaatggc ttgctgttaa 300  
 cactgtggac ttctttaatc aagttaacct gctgtatggc acactcacag agttctgcac 360  
 atccgaaagc tgcccaacaa tgactgcagg cctaaagtat gagtaccgat gggctgatgg 420  
 tgtacagata aagaagcc 438

<210> 7227  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E7  
 <400> 7227

attcgcgggc cgacgggcta tggaatatgg aatcatgagt ggcattgagcc tagcattggg 60  
 gatgccaag gcacccaag gtaatatcca aggataacca acagactact attggggatg 120  
 ccccgatgg catcacctct ttctcttca ttcacggta agtttacttg gagctacatt 180  
 tttattcacc acatgatatac tgttttgctt ggaccgtcat tttattttgt tttatgcttg 240  
 ctgtttgaat aaaataccat gatcttaaat tcttatatgt tagagagtct tcacatactt 300  
 acataattat tcgactactc attgagcttc acttatagtt ttctgagtag tttgtcgttt 360  
 gctctagtgc ctcaattata tcttcttaca gaatggccgt ggttttaatt catataaatc 420  
 gatgaactct catgcttc 438

<210> 7228  
 <211> 315  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-E9  
 <400> 7228

acgggacagt aggaagcaga gacagcagct gagcggttgt gatggacctg gttttgacat 60  
 atttttgccc tggactatta attttgcttg ctctccctt tgtctggttc caaactgtct 120  
 gtggaattga cttgattagt cagctttgaa atgggtatacg tggcacgtgc acagcacaat 180  
 gcaattttcc aaactaaata taatatttat gtctgatgg aatgtcaagt ctgctctatt 240

gtatgatatg aacctaggac tgtatcttat tgggaattaa gagtcacgga gccaaaattg 300  
tactctgttt cgagc 315

<210> 7229  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-019-Q1-E1-F2  
  
<400> 7229

cggtcctaga atcccgggtc gacggggggc gcaagtgaat taccactact tttaacgtta 60  
ttttacttat tccgtgggtc ggaagcgggg ttcacatcat cctgcgtacc gcataacgag 120  
aatgaacccc acgccctcac catcacaaca acctgatgtt atttagccct tttccttctt 180  
ccagggcctg cagctcttct cattccggca gcctgaaact tgagtgaata aaatgtcttg 240  
tatcgtctaa ccgttttgct acggccatth gagatggttg atacatactt acatcacggg 300  
tcaatgtatg agcttatgat gtcttgatca ggacatgttt tctgtgtgtc attccatttg 360  
tgataaatca tttcaaatga atgttgatg caccatggan caagctc 407

<210> 7230  
<211> 251  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-019-Q1-E1-F3  
  
<400> 7230

acggtcaaat attccgggtc gacggggcgt caaagtttac cggagatcgg ggtgatatag 60  
attgttaggt ccgcagtttg ccactttgta atgttcctcc ctacatagcg ctgtcatgcc 120  
atgtgtcatg tgtgccttgc tctcagcagg gaagttgagt tgttgatgt tgtgtagcag 180  
aacgatgctt tctgctgtg aatgtaaaac ataagattgc ctaaaaaaaaa tcaatcaaaa 240  
agaaaacaaa a 251

<210> 7231  
<211> 436  
<212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-019-Q1-E1-F6

<400>      7231

```
attcgccggt cgacgggagt atcaattggg cttgtctgga cttcttttgg tggggaagtt   60
cagttttagtag aggctacagc catggtgggt aagggtgact tgcattctgac aggacaactt  120
ggcgatgtaa ttaaggaatc agcacagtta gctctgacat ggggtgagagc aagatctgct  180
gaccttaatc tgtcaccac ttctgatatt aacatattgg agagccgtga tatccacata  240
cattttcctg ctggtgctgt gccgaatgat ggtccttctg caggagtgc actggttaaca  300
tcactgggtgt cattgttttag taaccgaaaa gtcagagcag aactgcaat gaccggagag  360
atgactctta agggcctact gttgccagtt ggtggagtta acgataacgt gcttgctgca  420
catcgatatg gcatca                                         436
```

<210>      7232

<211>      371

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-019-Q1-E1-F8

<400>      7232

```
attcgccggt cgacgggaga catgatcgca cgtagtgatg ttgctataac cagtgacagt   60
aagtagcagt ttgctcgagg tacattctca cagtagcaat ttgaaccttg tcatgaatgt  120
cacaaagtca gcgtcgagtt gcgtcactgg gacaatatca actactcaca tttgggaatc  180
atagacttgg aactaatgca gatcataaat tacgatgtgt cgcgcatagc ttgtgaatgt  240
ccatcagctt gaatatgatg ctgtggaagg cctaccaagt gtgcctgaca tcaaactgac  300
tattggtgtg attaacatct atcccggtc atgtaccagc agtttataac atttagttac  360
catatgtttt t                                         371
```

<210>      7233

<211>      356

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-019-Q1-E1-G11







tgggcagaac ctggagagag ggaagatcaa ggctgccatc gacaagattg tgcacgacaa 300  
 agggattaga gagaggatgg atgccttcaa attaactgca gatgaagcag ttaactccca 360  
 aactgagggtg aaagcttttg ttgatctcat aaactcgttt taattaattc agaaccttcc 420  
 acttcagata cct 433

<210> 7238  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-019-Q1-E1-H4  
 <400> 7238

ggtcgacggg gatgttgaac ccatccggta aagaaggctt ttgaagcggt tgaaaaggcg 60  
 gacgtccggt tagggaagtc aaaacccaca ggcaacattg gaacgggtatt gcattccttc 120  
 atcatcaagt gccctggctc caaacagcaa acgagagaga aagtgatcgc tgcaatgtct 180  
 cgcgccatga gctcagtgtg nagtcgggtg angggagtcg gtgcagtaga ggttggttac 240  
 tctgctggtg gcatccaagt agcaagcagc cctgaaacc ttccattctg ttgatagaag 300  
 ttgtaggctg agacagcaag ctgagatttc tgacttagca atgcaagaaa agcacaagct 360  
 aaaccgccat tgttgtaacg gtaggttctt gtgctccttg tagttttgat gtttttttgg 420  
 gaagaaatac atgc 434

<210> 7239  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-019-Q1-E1-H6  
 <400> 7239

ggtcgacggg ggagaaagcc tgccgccgtg tcgtccggag aggacgcggg tgccgatccg 60  
 ttttttttgg gagagcagtt tccgtgattc tgcttggtgc aaaaaataga aatgaatgta 120  
 tttaaaacta aaatacgtct agatacatct atttctccga tggctaacac tccacttcat 180  
 gatacatgga ctogtgtttt taagaaaata aaaaagagta gcaaataatc cggcgtgacg 240

agacggaggg cgagcgtatg gccgacaact tggctgctct tttgaggaag ggacgatggt 300  
gtccagacag cggttgcttg ggagcttgca aggcctgtgt ttggctccta cgccgagttc 360  
agtgccctgc aggttcaagg taactctgac atccttgac g 401

<210> 7240  
<211> 360  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-019-Q1-E1-H8  
  
<400> 7240

ggaagttgag aagctgattg gcaggatagt gaagtggctg aagcccgggtg ggcatatattt 60  
catcagggaa tcgtgcttcc accagtctgg ggattccaag aggaaagtga acccgacgca 120  
ctaccgggag ccgaggttct acaccaaggt gtttaaggaa tgccactcct atgaccaaga 180  
ggggaattcc tttgagcttt ctctggtaac ttccaagtgc attggagctt atgtgaaaag 240  
caagaagaac cagaaccaga tatgttggct gtgggagaag gtcaagtga cagaagacaa 300  
aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatct tgcgttatga 360

<210> 7241  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-A4  
  
<400> 7241

ccacgacaag gtcgtcaagg ccagatctg ggacacggca ggccaggaga ggtatcgggc 60  
aattacaagt gcgtactatc gagggggccgt cggtgcgctt gtcgtgtacg atgtgacacg 120  
ccatgtgacc tttgagaacg tggagaggtg gttgaaggag ctccgggatc acacagatgc 180  
aaacattgtc atcatgcttg tcggcaacaa agctgatctc cgccatctta gggctgtatc 240  
agtggaggat gccaaggcct tcgctgagag ggaaagcacc ttcttttatgg aaacatctgc 300  
gctggaggcc atgaatgttg agaacgcctt cactgagggt ctgactcaga tctaccgtgt 360  
ggtcagcaag aaggccctcg acataggcga tgaccctgct gctccanega gagggcanna 420  
catcaatgtt ggtggcaagg atgatgtctc tgctgtgaaa aa 462

<210> 7242  
 <211> 286  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-A5  
  
 <400> 7242

tcggtatgat gaatgctaca ccaggatcag gacggtgaat gttagcgcta ttcgtgataa 60  
 ttgtattagc atgtttggct ttcgcatgta ttctgatcga atgtggtctt ctcccgacgg 120  
 ctgcttcacg tgtgctcacc aacgaagttc aatgctagca tgcgtgtga agtggctcgc 180  
 acagcgacaa tccgatggtg ctgcataaga ctgggcaaga cctatcatat gctgaagtct 240  
 ttcagtactg tcacagattg ggtcagggtga atcagccggg cgctct 286

<210> 7243  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-A7  
  
 <400> 7243

ccggggccac gggggatatg agacaacata cagtgagacg ccagaagagg cgcaggcgga 60  
 ggaggattcg gggggtttca gcttggttctg aaactgcaag cttggatatc agccgactta 120  
 caccgggatg gtagcaggcc agcaagcagc acttggtactg aacttgtttt tgcattgtcta 180  
 gatggggaag tgattcttct ctgtgattct tgtatggcca ttgtgtataa tagaaacgtt 240  
 tgcattgcaac cacgggtctg gctgcatggt ctaaagagct aaacatgaac aaagaacaca 300  
 tctggagtat cctgtagcac acatggggaa aacacgtctc tatagtgaat ttgcgggtata 360  
 catgtctgtc 370

<210> 7244  
 <211> 319  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-B1  
  
 <400> 7244

ccgccatagc ccagtctgcg ccggattctg tgctgatgac attggcggag tttgggacga 60  
 caatagaggc gtggaatgca ctcaaagaga tgaagattga gttaaactcg gtcatgaatg 120  
 ctctggcaca tgtgctgaag cgccaatttc acaagttgca gatggagaaa actgaatcgg 180  
 tgaacgacta tgccatgcag atggataaag ctcgacgaga gcgacattgt ggagaagttt 240  
 ttcagttcgg tcaactgataa attcacgtac atcatcggta cgctcgaaca actttacgat 300  
 atccacgaca tgaccataa 319

<210> 7245  
 <211> 253  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-B12  
 <400> 7245

ggtccacggg gaagaagaag aagaagaaga agaataagaa gaagaagaag gagaagaaga 60  
 aggagaagaa gaagaaggag aagaagaagg aggagaagaa gaaggagaag aagaaggaga 120  
 agaagaagaa ggagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga 180  
 agaagaagaa gaagaagaag atgaagaaga agaagaagaa gaagaagaag aagatgaaga 240  
 agacgaagaa gaa 253

<210> 7246  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-020-Q1-E1-B7  
 <400> 7246

ggtccaagat ctccgggtcc acgacgaagg ccgggcactc gtcagcggca cagcgaagga 60  
 cacagaatgc cgagtgacat caccaccttc ttgaaccagt acctcgggca ctgatgcagt 120  
 tcgagtggcc ttgccaaccg gcgcctttct attattcctc gccctcagtg gcacctcgtc 180  
 ttcacatca gggagatcaa tgacatgatg aggagctgca gcatgaatcc agagttagaa 240  
 acgaaaatcc aatcgaccaa aaggaaaact acaagagagc gtaccagggt tggaggtggc 300  
 agcatcttcc atttcttggt cgtctttctt ggcgagggtc tcggaggtag cagcactgca 360

gatttcagaa accagtcggt aagtcgatga gtcaaccaag agtttgtccg tgctaaataa 420  
gaaaacacaa gctccgttgt tacccgga tagtggaat 460

<210> 7247  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-C1  
  
<400> 7247

cctgcctgta ccggcacgag attcncgagt ccacttcggt acattgcgcc aagggcgaat 60  
caccgggcac caccgcaata aaccgggtcca ggtataaagg cgtgaatgcc agggacgaac 120  
cttcggatgg ctggaacgcc acgcccagct ccacttggtc atcgcgacc attccagca 180  
cctgttcatt gatcaggtca tgcaccgtca cattcacctg cgggtaacgt gcgcggaata 240  
tcttaagaat cgggtggcagc aggttgcccg caaacgaagg catcgccgcc acggtgacgc 300  
ggccacgctg caggggtgaaa cgctgacgca gttcgtcttc ggcattgtcn cagtcggcaa 360  
tcaaccggcg cgccaacggc agcagcgatt caccttcagg cgtcagtgcg acgttgcggg 420  
tattgcggct gaacaggcgg ccgct 445

<210> 7248  
<211> 363  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-020-Q1-E1-C2  
  
<400> 7248

tccgagcca cggggtaccg cgaatgattc atcatactga ggaaatttag tctggcatca 60  
aattttatat ggtctgatgc tcagacacca atggaattgt tcaaatctta ccagtggtg 120  
atcattgtag gctocatttg ttatcaaaat acgctaatta gtgcgtgctc atacacaaaa 180  
ggaacagttc aagtcttgtc gctgctcag tcaatcgtga gttacagtaa aagctataaa 240  
tgtctagctt tgagctcagt ttagttttga aatgcataat tagcttttac attacatgtt 300  
tgaaagggtt ctcttctaatt ttatacttaa ataaaattgg agaaattctc atctcgctaa 360





ctacgggggtt cagatcatag ggccctgtag gttgttcctg 460

<210> 7251  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-C7  
  
<400> 7251

cggtccgaan attccgggtc cacgggtccg gatatcttgt ggagctcggc ccaactgggccc 60  
atctgttcgt tcagcaacag tggacacttt ggctgtctga attgcgacca gaaaagcttc 120  
tctgttgcatt gcccttcttt cgcttggaag aaccgcgcct catcagagac actcttcggc 180  
aagtccaaga atgcatctgg agaactccac ttttgattaa gcggggcata ctccggatca 240  
acgaatttag tctgtaataa gaaaggctta ccggccgcta tctcccagc ttgcgggata 300  
ttctctcgag ccgccctaga cacggatcat gcttctctcg cctcttgtaa ggccttgctg 360  
agatcgacct ttttggcttt gttatccttc tcgaggaatt cgcaccggac agtggtcttc 420  
ttttgctcgc gcgccatggt agacattctc tctctgcac 459

<210> 7252  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-020-Q1-E1-C8  
  
<400> 7252

ggccaagat tcccggggcc acgatgacac accttatcga agactcggac atggaacttc 60  
ttatggcgat ggcattcaca catggccatc accaccttgc tgcgggtgac gcaacttacc 120  
gaacaacaat tcttttctcc atctctcttg acgcagctcg acgacgatgg agacacgcac 180  
cagcagctag cagcatcgcg ccgccacctc cgtccacctt gtgcgggcca cctccacctc 240  
acatggattt cgcctgtccg ccgcctctgc cttggatcga caaggctctg ataccaattg 300  
ttggcgccgc ctctctcgtg tgcagcgccg ctcttcttc tacctcaagc tgccttacac 360  
aactctcttg aggtttctct caagaacaca agaatacaca cacacacaag aaactctaca 420  
cacacgcacc aaggaagaag cccaactacc tt 452

<210> 7253  
 <211> 489  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-D1  
  
 <400> 7253

acgcctgcct gtaccggccc ggnattccg agtcgacggg aaaggtaga attttcaccc 60  
 caccaccac ccattctctc gccaatgtgg agaacctaac caaagtcctc gcaagcggat 120  
 ccgacgacac cgatgacatg gacgaggagg tcagttagtc ctgggcccgc ctgcaaacia 180  
 ccaccacacc aacgaggaag tggatgacaa cctccacctc cgacatctac gtggttagata 240  
 ctccccacga caacagtggc agaggcgata atgataacia tggccggggg aggcaacggg 300  
 agcaataacg gtgggaatga taacatggca ccaatgccaa caacccaac aacaaccttg 360  
 gtcccgatca caaggacacc ttaaacaagt cacttggcag tccaaccac gatgcattaa 420  
 agctaaggct gctcgacacc gccacaaga taaccgatga aaagcaacga cttcgtgaca 480  
 aagagaaat 489

<210> 7254  
 <211> 311  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-020-Q1-E1-D3  
  
 <400> 7254

tccacggggt ggccaagaac ttcgattgcc atggccagggt tgttgaggaa gcttgtgcgt 60  
 tgaagagtgg aaggagctgt taaagctttt tctttcggca gttggcttat tatgctctgg 120  
 ttccttgcaa aaaaaaagaa aaggcttatt atgctctgga gctgtcttgc atttttcctt 180  
 cttgcaatgc tgcgttagcg gtatgtaatc ctgtaaccat attttgagta ctctctgggt 240  
 tttcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacag 300  
 acgaacaaaa a 311

<210> 7255

<211> 385  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-D4  
  
 <400> 7255

tggtagcct gccatgtacg gtccgagatt cncggatcca cgggtccatg ccatgccaat 60  
 cattgagctt tcctgaaata tttatcttga aatagcatta gctcaataag ctatatgttg 120  
 ttaggaatta ccaaaccac ctagggatag ttgcactttc aatactctat gtgcttcact 180  
 tatactttt gagcttgata gtttttgctc tagtgcttca cttatatctt ttagagcgcg 240  
 gcggtggctt aattttgaag aaatttctag tctctcatgc ttcacttata ttattttgag 300  
 agtcttttag aacagcatgg tatttgctat gggtataaaa ttggtcctag aatggtaggc 360  
 atccaaattg ggtaaaataa aaact 385

<210> 7256  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-020-Q1-E1-D8  
  
 <400> 7256

ggtccgaana ttccgggtcg acgggacca aggacttcta ttcttaagga ttggaggga 60  
 aatattgtga caactatttg atccaccgga agtttcatga ggttttactc tgtgtgatta 120  
 agatggcagc agattacctc aaacctaagg acccaaactt tagtgtgcac ccaaagattc 180  
 gaaaggatag aagggcttat ccccatctta aggattgcag tggtgacta gatggtactc 240  
 atgtcagagc ttctattcct gttgacgacc aagttagata cattggaagg tcaggatcaa 300  
 caactctgaa tgttctggca atatgtgatt ttgacatgaa tttcatgtac acctcagttg 360  
 gtcaacctgg ttttatgcat gatacatgtg tcttgatca tgcaattgaa gctgatanag 420  
 atacctccc tcacctccg aagggttagt agttcctata ataattttgt tactcaaa 478

<210> 7257  
 <211> 491  
 <212> DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-020-Q1-E1-E1

<400>      7257

```
acgcctgccc gtacgggccc gagattcncg agtcgacggg agacggctcg aatacctgaa   60
gcacgagaat ttcattggaat gagcagtcag ttagtcaagg caatgccgag tcttattttt  120
acaaaagtcc aggaagacaa ttgtacttcg ccaacatgtg ccatttgctt ggaagactac  180
agtgttggtg aaaagataag ggtgctgcct tgtcgtcaca agttccatgc tgcttgcggtg  240
gacctgtggc tcacatcatg gaggacattc tgccctgtat gcaagcgaga tgcaaagtct  300
ggaatgtcaa atttcctcct atcagagtct acccctttgc tttcttctgc tattcccttg  360
ccagctgaat ccacaacttt gtcttctttt cgttcaatgg tagcagcatc tcctccaagg  420
acaataagcc ggcattcctt atggcagtc atgtcccgca ctaactcaa ttccagtatc  480
ctcacatccc g                                     491
```

<210>      7258

<211>      400

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-020-Q1-E1-E10

<400>      7258

```
cgggtcacgg gaggcgggtca cggtacaaaa agcgcgacga cgacgacgat gatgacagga   60
agccgcggta caagaagcac gacgacgacg atgatgacca cgagaggagg ccgcggtaca  120
agaaacgtga cgacgacgac gatgatgacg atgacagaag gccacgttac aagaagcgct  180
acgacgacga cgacgatgat gatacgaagc caggttaca gaagcacgat gatgatgatg  240
acgacgacga tgataggaag cagcgtcgcg ggaacaatcg ccgccgccac gatgacgatg  300
actgattatg acatgacttt acgctgacgc taataagcat aattgcggcg gctttgcac  360
gagtaattac gacatttcac atttttttca aagcattttt                                     400
```

<210>      7259

<211>      472

<212>      DNA

<213>      *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB104-020-Q1-E1-E7

<400> 7259

gggccgaana ttccgggtcc acggggcgag gaggcagcag atcgccagcg tggcctacaa 60  
cggcagcctt ggacaagcca acaatccctt cgaaacgaac gaccctttcg ccatgtccaa 120  
cagctttgag ccccttcca acatccggct ggcaatggtg acccagcagc agcaatactt 180  
ccaggctcaa caacatcagc agcaatacta ctaccagcct cagctccaat actaccagcc 240  
ccagctgcag cagcagcatc agcagcagta tttccaggct cagcagcatc agcaccagta 300  
tttccagcag cagccccagt attgtgtgca tccggccgga acttacaatc cgtttggtga 360  
ccctttcact gaccttgtaa ctctgggtgc tccttcaaaa caaggcgatt taagtttgct 420  
ctgaattgcc cggccctgtt tctgatctca gtcaatatag atgggtactc cc 472

<210> 7260  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-E9

<400> 7260

ccgggtccac gggaggcggg caccgtacaa aaagcgcgac gacgacgacg atgatgagag 60  
gaagccgcgg tacaagaagc acgacgacga cgatgatgac cagcagagga ggccgcggta 120  
caagaaacgt gacgacgacg acgatgatga cgatgacaga aagccacgtt acaagaagcg 180  
ctacgacgac gacgacgatg atgataggaa gccacgttac aagaagcacg atgatgatga 240  
tgacgacgac gatgatagga agcagcgtcg cggaacaac cgccgccgcc acgatgacga 300  
tgactgatta tgacatgagt ttaagctgac gctaataagc atagttgcgg cggctttgca 360  
tcgatgaatt acgacatttc actttttttc caagcatttt tcatttcgct gttcactggg 420  
caccatgcct ccaatcgtat gc 442

<210> 7261  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-F5

<400> 7261

cccggggcca cggggaccac aaagagaaga aggacaagaa gaagaagaag gacaagaagc 60  
acggcgaggg ccacaaggac gacgacggcc acggcagcag cagcagcgac agcgacagcg 120  
actgagccag ctccggccgc gctccggcag cagcgtgcag tgtaggcgag atcgatgaac 180  
gcttgggaga agtgtggcat acatatatgt tgcagggttt ggagcgtgtg gtagcatatg 240  
tatgtaatgc gtgacatgtc tcatggatct tgtgatgtat aataattagc cggctgcact 300  
gcactgcacg gtgcttgtaa taataacggt aatgaatcat gttggtattg atgcatctcc 360  
gttggttaatt tggatatccc atgtttttta aaaaaggcca caacagataa ccaataaagg 420  
ggccgcccta aag 433

<210> 7262

<211> 217

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-020-Q1-E1-G1

<400> 7262

tgcacggggg caacccaatt ttattttgtg ttctttgttt ttgttctgt ttagtgtaa 60  
attttgttct tactttctgt atanatgtgg ntttgtgttt taattaatgt ttgtgccaag 120  
taaaacctat aggataagct atgatgatag ttaatttgat tctgctgaaa aacagaaact 180  
ctgcactcac gagaaaaaat taaattaatc acaggaa 217

<210> 7263

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-G2

<400> 7263

ctgctgtacg gtccgagaat tccgagtcga cgggttgacg aggagggacg gcgggacgag 60  
ctggttcgcc gacaatctca acaggggcca tcttgattac ttctacctgc tctcgtgc 120  
tctcagcgcg ctggagcttc ttgctttcct ctacttctcg gcgaattaca ttacaagag 180

aaagcttgtc aatgttcact gaccgagact aatacatccg tctatgtact atggatttgt 240  
ggccaggtat acagtacaat tgcagtttagc atcagtaaag ttatacgagt acgctgacga 300  
ccgaccctca gattttttttt ctttttttga aaaaaaaaaa aaaaaagaag aaagaaaaaa 360  
aaaaaaaaaa gaagaagaaa aaaaaaagga aaaaaaggaa aaggaaaaaa aaaaaaaaag 420  
gggccgccct aaa 433

<210> 7264  
<211> 320  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-G3

<400> 7264

cacggggatc gccaggagc tgcggaagct gcacagggaa gcggttcaga acaccatcaa 60  
ctcggttact ctggtggcaa ccctgattgc gtccatcgcg ttcgtctcca tcttcaacct 120  
gccaggccag tactaccagg acactagcag cgggggagag atcggggagg cctacatatc 180  
caagctcacc ggggttcgcg tgttctgcct cctgaacgcc atcgccctct tcatctcgct 240  
cgcggtggtg gtggtgcaga ttacgtggt cccctgggga gaccggcgcg cagaagcaga 300  
tcatcaagat tgtgaacaag 320

<210> 7265  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-G9

<400> 7265

ctgcagtacg gtcttagact cccgggtcga cggagagagg ctaacaatga tggagggtg 60  
agagtgcata taatccatgg actcaacatt agtcataaag aactcacaca cttattgcaa 120  
aaatttatta gttatcgaag caaagtacta cgcgcatgct cctaggggga tatattggta 180  
ggaaaacacc atcgctcgtc cccgaccacc actcataagg aagacaatca ataaataaat 240  
catgctctga cttcatcaca taacggttca ccatacatgc atgctacggg aatcacaaac 300  
tccaacacaa gtatttctca aattcaaaac tactcaacta gcatgactaa tataacaaca 360

tcctcaaaac ccaaaacaat catcaagtat caaacttctc ataataattca atgcactttt 420  
tatgatagtt tttatttata ccatcttg 448

<210> 7266  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-020-Q1-E1-H11  
  
<400> 7266

ggtccaggac tccgggtcga cgggagcgcg gggcagaagg agcgggtgcg gctgctctac 60  
cgccgcgcgc tcaaggacac cctcaactgg gccgtccacc gccacctctt ctaccaggac 120  
gcggtccgagc tcagggacaa gttcgaggcc aacagaaatg tggagaacct ggacgtgatc 180  
gatagggtca tcgaggacgc ggagycgcag cagaggaact tccagcaccg ggatccttac 240  
attgttccat gggtccttg tggcactaaa ttcacaagga accctcctcc acctgaaggg 300  
attgagatta tctacaacta tggcaaagaa gaccaatgaa caagaatcat gcatttgtga 360  
gcagagcctg gcaccggcgg agtgcagagg acttactttt gcttttccag attataacat 420  
gcaactgagc tgctggtatg ttaagaac 448

<210> 7267  
<211> 319  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-020-Q1-E1-H4  
  
<400> 7267

cgacgggagg cgctggtgga gcaggagggg ctcttctggt tcgggagctt ctggggcccg 60  
acggagcagg gggaccccggt gtccgcggag gatcagatgt acgcaggctt gagcttgccg 120  
gtagtcttag agagagtgcg cgattaggca ccgacgacga tgcagtttga tgcaagcggc 180  
ttgcattgca gcttctagat gaggtttcta cttttccatc cgggcatcat tcggtcattg 240  
cactgatgat tccattcctt actgtacata tggtatcatc atggtacgcc tatcaatcaa 300  
agggacaatc ctgaacaat 319



<210> 7268  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-020-Q1-E1-H6

<400> 7268

```
attccccgggt ccacgggctg cataaaaaag gtccttatca caagtggcaa tataaagtga 60
cggtccctcg cattaagatt ttgtgcatcc aactataaaa gcgcatggca acctctgctt 120
ccctctgcga aggggctatc ttttattctt gtcttttacc ttatgcaaga gttatgggtga 180
tcttcacctt ttccttttta catttatcct ttggcaagca cattgtgttg gaaagattct 240
gatatatata tatatatcca attggatgta aggcacatg agctattatt gttgacatta 300
cccttgaggt aaaagggttg gaggtgaatc tataagcccc tatctttctc tgtgtctgat 360
taaaactttg aaccataaaa tatcgctga gtgtagcaa ttgtgaaaga ctaaagata 420
gttgagtaaa tggagtttgc taaatcaaag ctctgacata aactcctcct gaa 473
```

<210> 7269  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-021-Q1-E1-A1

<400> 7269

```
gggtccacgg ggttcgaaca gcggccagtc ctggcttact tccaaggagc cattcacaag 60
gaaaagatgg gtggaaaagg ttcgtcagaa agctgttaca gcttctcaag gacgagaaag 120
acgtgcactt cacctacggg agcgtccggc agaacgggat caggcgcgcc accaaaggca 180
tggcatcgtc caagttttgc ctgaacatcg ccggcgacac gccctcctcg aaccgcctct 240
tcgacgccat cgtcagccac tgcgtccccg tcataatcag cgacgagatc gagctccctt 300
tcgaggacgt cctcgactac tcggagttct gcgtgttcgt ccgtgcgtcg gatgctgtga 360
ggcaaggctc cctgctgcgc attctccgan gcgtgaccag ggaccagtgg actaccatgt 420
ggagaaggct gaangangtg gctcatcact ttgagta 457
```

<210> 7270

<211> 53  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-A11

<400> 7270

cgtagcgtgc tccccagcag gcgtccaccg gtcggggcgtc tcatcctggt gtg 53

<210> 7271  
<211> 341  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-A12

<400> 7271

cgcctgcttg tacgggccct aaattcccca gtccacgggg gtactctgtc tctaaggttc 60  
gttccaatct caccatttta tttgattgag atgagagagg ggtcagggtg cacgcggtgg 120  
ctgttcgtgg ttgcgtgctg cttatgtact gtgcaatttt attttttatt tttttggaga 180  
tagttgctgc tctgtgctag aaggagggat gaacagagga gaaacaggac agggctgggt 240  
gttgctctgca cacagagata ttgagataat tggactatt gttgtaaaat gttttaatgg 300  
aaaaaaaaat cctccattcc cttgcaaata agtttggttt a 341

<210> 7272  
<211> 458  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-A2

<400> 7272

cgggtcgaca ggaaaaaatg acgtaatgag atgatggtgc catcaagaag ttttcgacga 60  
acgtagtagc ggccaaaaat gaaactcttg catgaaagac cggatttgac gcaagatgaa 120  
tggcgttggg gtttttcaaa tgaaaccgt gatcagaaag tcaccaacgg agccatacaa 180  
tctatctagt agtgtgccat ggcacggtac tccgcttcgg caatggaagg agcaactgtc 240  
tattgcttta tctcatccaa gatagtgtct cgtctcccca taaaatagat aagcctgtag 300  
ttgagcacct atctgaaggc ccaatcggca tcagtagttg cacgcaactc taaagaagac 360

gatgatggaa aaaaggacgg ctgcagaaaa ggtacctcga atatatctaa gaatctgatg 420  
aactgctgca aagtgaactg accggggggc agccatgg 458

<210> 7273  
<211> 479  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-A5  
<400> 7273

taccggtcct aagctccggg tcgacagggg atgactccta atatcgacat taagttatac 60  
actcacatga tttcaaaatt attggcatac tctatgtgct tcacttatat cttatgtgcg 120  
atataggttt tgctctagtg cttcacttat atcttttaga gcatgggtggg ggatttggtt 180  
tatagaaact attgttctct catgcttcac ttatattatt ttgagagtcc tttagaacaa 240  
tatggcaata ataaaaactt tcatacaagt gcattgaata ttatgagaag tttgatactt 300  
gataatcggtt ttgagatatg gagacggtga tattagagtc atgctagtgt agtagttgtg 360  
aatttgagaa atacttgtgt tgaagtttgt gattcctgta gcatgcacgt atgggtgaacc 420  
gttatgtgat gaagtcagag catgatttat ttattgattg tcttccttat gagtggcag 479

<210> 7274  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-A7  
<400> 7274

gggtcgacgg ggatagtaaa tgttatcgac acccgtagca ggagaatttt gaggggagca 60  
gtgaggaagg gacacctagt aagagcaaat tccaattgaa actcagagat ctccggagaa 120  
gcacttcctc gtttgcttta ttggacagga attatctcac tcccattttt acctctcaac 180  
acgaggacga tgatgacgat gacgacaacg acgatgattc ttgtgaagtg ttggcgatac 240  
ccaggcccag cgcttagatg ttgggaaggc tatagctaata gactgcaagc acaaagtgac 300  
cgggtttttg cggatttaca cgaagaagct ctcagggctg gtaccagttc tgggttcgtc 360  
ggagttttga caaaaactgt tctgtctgcg ttgagataag ctcttctgat ttcttctgat 420

<210> 7275  
 <211> 241  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-021-Q1-E1-A8  
  
 <400> 7275

attccccgggt acacgggggat agttgatgtt atcgacacac gttcgatgat ttctttgatg 60  
 agactaggaa ggatgggaca tcaacatctt ccatacacta gttgcaatgc agatatacacc 120  
 ggtaacgtat atccgcgtct gcctcagtag tgaagcatca tcaatccgca tgtttactac 180  
 acatcagtaa ggtgttttag actatgacga caacgacgat gattcatgta aactgttgcg 240  
 t 241

<210> 7276  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-021-Q1-E1-B1  
  
 <400> 7276

gacgatgtgc ccgatgatga tgatctccgc cgggtcattg ttgatgcaag ggcacagtga 60  
 gagagtcaaa aggagaagct gaaggtcgat cacatgttag aggatcacia aaaaggggtg 120  
 taccccaatt gcgaagatgg caacacaaag ctccgggacca tactggaatt gctgcagtgg 180  
 aaatcagaga atgctgtgcc tgacaaagga tttgagaagc tactgaaaat attgaagaag 240  
 aagcttccaa aggataacga attgcccgc agtatgtatg cagcaaagaa ggtcgtatgc 300  
 cctctaggat tggagctgca gaagatacat gcatgcccta atgactgcat cctctaacgc 360  
 gatacgtacg aggatttgaa ccatgcccgg t 391

<210> 7277  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-021-Q1-E1-B10

<400> 7277

ttcccgagtc cacgggaggt tcacaggaga gaaacgacgg agttagaagt tgtaaatatg 60  
cattgttgta tcgcgacctg aatgaaataa acgaaataat gctcttggtc aatcgtcagc 120  
ctccggttca agtactgcac caagctgtta ttttttacct ttttgaaaag aagcacgtgt 180  
tgctgtgttt attttatatt tttatctaag gatccagaca tctacaaaca caccagtgta 240  
accaccaa at ggtcatatac ccctaaaacc cctttgcggg gcaagggcca aaataattaa 300  
ttcaaccaat taataagggc ctccttcaag gttaaaaaaa aaaaaaaaaa aaaaaaaaaa 360  
aaaaaaaaaa attaaaaaaaa aaaaaagaaa aaaaaaaaaa aaacggggcg tccaaaggat 420  
tca 423

<210> 7278

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-B11

<400> 7278

ttccctagtc caccgcgggc gcgaacagct ccaagtcgcc cgcaagcacc agaagagctc 60  
ccgcaagtgg acgtgcatcg gcatcggcat cctgctcgtc gtcacacctca tcatcgtcat 120  
ccccatcgtg ctcaagaaca ccaacaagag caacaacaac aacaaccagc agtagtagga 180  
atagcttggtg atgatatgat cctggcttgc ttgcatgctt gctgggtgtt gttgatcgtt 240  
ttttgtggaa ttttttgcga ttgtaattac tccatccgtg cggttcgttg agccaatcga 300  
ttatgttata taactatata cttttcggcg attaaaaaaaa aataaaaaaaaa aatagggaaa 360  
aaatttattg aattaataga taaaattgaa aagattttta aaaattaagg aggagtaaat 420  
aaaaa 425

<210> 7279

<211> 288

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-B12

<400> 7279

ttccccgaggt cacgggcaac tgcgaattgt ttaatccgat ctattagaaa aaatagagag 60  
aagaccatga cccgaagagg gacgtggacg ttggcacggt ttctatccgc ggtttccatc 120  
ctgggccaag ctggccttgg atcgctcccg ctgtagaaga gccgccgtag agattgatgt 180  
ggtcagattg ccccaacgaa gttactgggt ttacaactac taccatcagt actgctgcta 240  
tgtgcaaagc tccatgcatg atttccaaac ttgaattaag ctttttttc 288

<210> 7280

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-B2

<400> 7280

cgggtccaca gggcgacggt ggcgatggac tgccggccgt tcggcggcgg cgagagcaag 60  
ctcaaggcgg aggcgacgac ggacaacaag ggggtgtaca agatcgagat cgatcaggac 120  
caccaggacg agatctgcga ggtggtgctg accaagagcc ccgacgcgtc gtgcgccgag 180  
atcgaggagt tccgcgaccg cgcgcgcgtc ccgctcacca gcaacaacgg catgaagcag 240  
cagggcaccg gtttcgcaa ccccatcgcc ttcttcccca aggagccgcg caaggagtgc 300  
ggcggcatcc tccaggctta cgacctcaag gacgcacccg agaacccatg aacccccatc 360  
ccatccatat agtctcgctc agttgcttcc catcatcatc atcatcatc tctcctcatg 420  
actctcctac gtacggtgcc cttgcctagc tacttctgtt cca 463

<210> 7281

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-B4

<400> 7281

gggtccacag ggatgggtccg cctacgcagc tcggacggtc aggagctcga ggtgatggag 60  
gaggcgatcg ccgccgcgtc taagacgatc aaggacgcgc tggagaaggg cggcgccgcc 120  
gacgacgcca tcccgggtccc cgacgtcacc ggccgagtc tctcccgct cctcgagtac 180  
gtcagcaggc acttctccga cccggccgcg gccgccgacc cgttcgacta catccccaac 240

ttcgacaacc cgctcaaggc cttegacgac gccttcgtcc aggtcgacca ggacacgctc 300  
 ttcgacctca tccacgcggc cgagtgcctc gacattgagg ggctgatgga cctggcgtgt 360  
 aagacggtgg cggaccagat gaggggcaag accatcgagg agatccgcaa aaagttccac 420  
 gtcgtcaacg actacacgc ac 442

<210> 7282  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-B5  
 <400> 7282

attcccggga ccacgggtca tctaaacgat gaactcaaag tggacaggcc attgtcctgc 60  
 ctgctatacc ttcgtctgag tgactgcagg gtaactacga tagaactcaa cgcccccaag 120  
 ctccaaacct ttatattcca agggaggctg gtgcctattc accttggcga atcttcagaa 180  
 ctgcacaata ttgttattca ttcttataca ctaacactag agcaagctat ttgttcattt 240  
 gctgatgctg atccactagt gcaacgcctg actctgtgtc aacttgtgc actaccgaag 300  
 ttcccctggc gattggacaa tactttctagc ttttctcatt tgagatattt acaactgttg 360  
 ttgaatatct tctctgaaca tgccaacgac attctctcta ttgcatattt tctagaggct 420  
 gctocattcc ttcaggagtt tgatttggag t 451

<210> 7283  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-C11  
 <400> 7283

ttcccagatc cacgggctgt tgcacaggat accaagcgag tgtttaggat cccacacagg 60  
 gcatttcttg acatgctcct agcacacctt gggctaata cgggtcagt atgatcgtgt 120  
 tgtacatgag gacggcaaga tctgtgtgac catctttttc aacacctgta cattggatct 180  
 tggaggacca atcagtatga acgcgtcgtg tcatcattcc tcttggctta cattatgccc 240  
 agacatgcaa agttgtggat cgtctgtaag ctaccatttg ctttcgtatg tcctatgtct 300

gtgatatttg caactaaacc tattgtgcta cgtgctttct atgttcgtac attgttaggt 360  
ggctccttat tgtgtgcata c 381

<210> 7284  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-021-Q1-E1-C12

<400> 7284

ttcccgagtc caccgacgtg gtgttggtga gcatgccgat ctcgagcggc atgcagccct 60  
cgaggggtgtt gttgaggaag atgatctcgt cgagcgtctt ggccatgcgg ccatgctct 120  
tggggatgca tccgacgaac ttgttgtttg cgaagacgac gacggaggcg gtggagttgc 180  
cgatggtctc cgggatgggg ccgacgaagc ggttgctgtt gacgaagatg gcgtcgtatg 240  
gcttgctgaa gagcgcgggc ggcagctcgc cctcgaactc gttgaagcgg atgtcgatgt 300  
acttgagcgt gggcatctcg aggcagacgt angggacagg gccgacgaag cggttgttgc 360  
tgacg 365

<210> 7285  
<211> 301  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-C2

<400> 7285

tggatgcaca ggcgctacga atccatgctt aatcgatatg gatccattg gttcagcacg 60  
tttcgtacta catcttgatg atatttggca ggaaacattt tgcgcagggt tacaacgtga 120  
ggaaactctt caacacatct agagtatgga ccattcacac gccattggtc catcatgcag 180  
tatccgcgct tgggactgga acttcagctc acccgtgcat tataggcccg accagtcagt 240  
acaatatcct accataacac gtgacgacac caccgggtca ttactctaac cctttggtta 300  
a 301

<210> 7286  
<211> 462



<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-021-Q1-E1-C9  
 <400> 7286  
 ttcccgagtc gacgggatgc ggctgcggct gcagccatag cctgaacca tgtgtggatg 60  
 aggtgagggg gatggagtcg atagaatccc taaggaaagc tttttgcaag cagatcaaac 120  
 aaactggagg ggtggcgctc catgctcggg agggtaggca gtcgatgatgc ttattaggga 180  
 tgggagttgg tagttgggac ccaggatcgt ttatgggctg tgtgggctga ctaggcccgt 240  
 ttcttgcttt gcctattttc caatgcttct gtgtgcagaa ccatgtgcta ctttagtggt 300  
 tgtgcctaag atctattggt cacgaacccc aaccttcgat ttgccgaacc ctgatctctg 360  
 atttgccgaa cccgaccttc gattcgctga accccaatct ctgatttgag atctgccaaa 420  
 cctgaccttt gattcgccaa atcccgatct ctgattcgcc aa 462

<210> 7287  
 <211> 448  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-021-Q1-E1-D1  
 <400> 7287  
 gggctcgacag caggttaggt gcagcagggg aagttctttg tctgctgatg aatataatac 60  
 tttcatgaat atatttgaaa gggattctct tctctattgc aatatgtcat ttgatgcact 120  
 gttaagtgtt cgaaagcaac ttgaagaatt tgaatttcct tgcaaagctg taaacgatgg 180  
 tctttggctc cagatgctcc tgtgccacag agtgcaagca atagttgctg atacttgcat 240  
 aaactgttgc cttacaagta attcttgctg ttgtaaacaa gcatatgttg gtacacacag 300  
 ccactacagg caggagcatg ataggacaag tgcttcagga actgcaggta gtatctacct 360  
 tgcagatgcc caaggcgatg ggaatggatg gtttagtcct gtgcgtgtta acgtaagagg 420  
 agcagttgat ggacttgctg gcattggg 448

<210> 7288  
 <211> 432  
 <212> DNA  
 <213> *Triticum aestivum*

<223> unsure at all n locations  
 <223> Clone ID: LIB104-021-Q1-E1-D10

<400> 7288

```
ttcccgagtc gacggggact agttgagatt ctagaacaga agaatgcccg ctacgtgccc 60
tttgatggct gggagaagat cgactccaaa gagaagacgg ccggcgagct gaagaacaag 120
cctagggaga agatcacaag atggaatgag ctcttggaag ctgcaaggga gggttagtgt 180
aagggccaca catatgcatc tgacggagct gctggttcat gcgtaaactg aatcaaagaa 240
acaaactacg agggacaatc tgaatactga cacaacagaa agaaagtcaa gtgctaattgt 300
gtcttagcaa tgaatcatgc gtaccaatac tgggttaaaat cccaaaaggc tcgatcactg 360
aagccacatg aaactactgt attcgtgaga tgcanctcgt ctaaatacatg ggcattcctt 420
tggaaaaaaa aa 432
```

<210> 7289  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-D12

<400> 7289

```
ttcccgagtc cacggggagg aggaggaggt aggggaaggag gcttctctcg gagacatcat 60
caacctcaag ttggtggaga gcggcgagaa ggagcggctg atggagcttc tccgggagcg 120
gctcgtagag tgcggtgga gggatgacat gaaggctctc tgcagggtt atgcaaggaa 180
aaaggaaga aataatgtaa cattagatga tcttattcat gttattactc caaaaggaag 240
agcctcgggtg cccgatgcgg tgaaggcaga gctgctgcag cgcacccgat cctttctcat 300
gtcttctctg ctttggtagc ccatgaatca cgccgatcgg aaggcacgtg taggaagctt 360
gaagcatcga tcttgaacgc gtgacact 388
```

<210> 7290  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-D2

<400> 7290

atagaaaatt accgtgggcg agatgctcgg gattcacctg ccgagcgatc acttcaatct 60  
gcagagcatc atactcatcg agtacctaca ggaacggatc gtgatgcaat gcgctttcgt 120  
caatgatatg catgatagcc aaatgcacct ctacctatgc gtctagacga gacatactag 180  
gtacttggga ttcttttgc agtagtaaat atatcgtcgc agcgagcgta ttccaaaata 240  
tattaacggg acctcgagtc gcagaccaat gagcagtgca ctgatacaat catctcaa 300  
atc 303

<210> 7291

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-D3

<400> 7291

ggtcgacagg tatgtttcct aaccatagac atgtgttgctc attggatgaa cgggatcaca 60  
tcattaggag aattaatgat gtgatggaca tgacccatcc cttagcttag cattaagatc 120  
actacagttt cattgctact gttttcttca tgcttataca tgttcctcgg actatgagat 180  
catgcaactc ccgaataccg gaggaacacc ttgtgtgcta tcaaacgtcg caacgtaa 240  
gggtgattat aaagatgctc catagggtgc tccgaagggtg tttgttgggt tggcatagat 300  
cgagattagg atttgtcact ccgtgtttcg gagaggatc tctgggcccgc ctgcgtaata 360  
ctcatcacta taagccttgc aagcattgtg actaatgagt tagttttggg atgaagtatt 420  
acggaccgag taaagagact tgccggtaac ga 452

<210> 7292

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-D4

<400> 7292

gggtcgacag ggatgtagga cgaaggcttt tctcgccaac tgaactccaa taggctat 60  
tggaactttt gcacataatt attaaagata gattttcgtg ccatgcgtaa accaagctgc 120

tgagagtcta cccagccac aagggggagc tgctccagta gttcaggata cccacccag 180  
 cccacaagg gttgacggac cccctaccta tacctatacc tgatgattac ctatacctga 240  
 tgattttcaa tccacagctc attttcttga atatgtgaca agccttgcaa attgtgataa 300  
 tatgtatcaa attagtggtc cgcataaccc aatatttgaa aattatggag gtgcaggccc 360  
 aagtacttcg aatcatcaac aagaaatcca agaaagaaca gcgaaggaaa aacgtgacaa 420  
 gaaaagtgtt ttctcgactc gagatggt 448

<210> 7293  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-E1

<400> 7293

gggctcgacag gtatatggag caagcatcaa gggatgagta agagctcttc agaggtataa 60  
 gacgataaaa taaccttgat gtccgtgaga tggcagttgc aaatcaaatt acgagcggct 120  
 atgaacgccc gagtagcgat tattaaatga gcaaaggctc aaggaatatg aagaaacttc 180  
 tatggattac tacgatttga gagctgacaa tgggtgtaa at ggacaaaaaa taccagtgtg 240  
 attcacaatt tgacaagtgg tgaagccaag tccagggtcaa agcaatcgaa aacagaaaat 300  
 gttcagattt gggtacaact atagatctgg aaaatatttg aaaaagaaaa gaaaaaccta 360  
 ggtatggtgg agctgctagg tgaagaaacg gcaatggagt ccacttggtg caacaagagg 420  
 gatctaaaac gtgatcaatt t 441

<210> 7294  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-E10

<400> 7294

ttcccagatc cacggggcat gggcacctta ttcggaacct atgcgggtgg tttccatggc 60  
 gaggagaggc tgggaaagct tggctatctc gttggaagcc agctaggcag ctgggttggg 120  
 ggaagaatcg gactgatggt ctatgatgtc atcaacgggt tgaactacat gcttgagttt 180

gtccgtccag aggagtatcg atcatcatct tacgcagcag aagagggctc agagtatgca 240  
gataactaca gaagttcgtc ttacgtatca gaagagggct cagagtatgc agataactac 300  
agaagtcgcg aaggatatga gccaacatac agtgagacgc cagaagaggc gcaggcggag 360  
gaggattcgg ggggtttcag cttgttctga aactgcaagc ttggatatca gccgac 416

<210> 7295  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-E11  
<400> 7295

ttcccgagtc cacgggtgga acaacattgt ggtttatgga gtttggatgc acaagcagta 60  
ttcccgctta gtatagggga aggctagcaa aagactggca agcgaccaac tgagagagcg 120  
acaacagtcg taaacatgca ttaaaattaa ttcacaccga gtacaagcat gagtaggata 180  
taatccacca tgaacataaa tatcatgaag gttatgttga tttcattcaa ctacatgtgt 240  
gaaacatgtg ccaagtcgag tcaactcaatt catttaaagg aggataccat cccatcatac 300  
cacatcataa tcattctaata aacatgttgg catgcaaggt aaaccattat aactcatagc 360  
taatcaagca tggcacaaga aactataatc tctaaatgtc attgcaaata tgtttacttc 420  
ataatagctg ac 432

<210> 7296  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-021-Q1-E1-E4  
<400> 7296

cataagggct gaattggatg ctatgatcaa cttgatactt gataattgtt ttgagatatg 60  
gaggtagtga tattaaaatc atgctaattg ggtgattatg aatttaaaga atgcttgtgt 120  
tgaagttagc aagtcgccgta gcatgcacgt atgggttaaag ttgtgtaaca aatttgaagc 180  
atgaagtgta cctggcttgt gcatccttat gagtggcggt ctgggacgag cgatggtctt 240  
ttcctaccaa tctatccctt taggagcatg cgcgtagtgc ttgggttttg atgacttcca 300

aatttttata ataagtatat gaggttctttt gaccaatggt gaggccatgg attatatgca 360  
 cttttacctt tccatcattg ctgacctttt cggtagcgtg cattgccctt tctcaccttg 420  
 agagttggtg caaacttcgc cggtagcat 448

<210> 7297  
 <211> 197  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-E5  
 <400> 7297

acgggtcaac gaactcattg gcgcaatgat gaaattgcta cttgaaaatt gtttttagtat 60  
 atggaagtaa tgatattaat ctcatgcaaa ttgggtgatt atgacctgat acaaagcatg 120  
 gggtgaagtt tgcacgtccc gttacaggca cgtgtcgata aagttgtgtc acataattag 180  
 tgcataaagt gctacca 197

<210> 7298  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-E7  
 <400> 7298

acgggtccac attcccgggt ccacggggag cacaaaaaga aggacgggga gcacaagaag 60  
 gacggcgagc acaagaagga cgggggagcac aaggagggca tgatggagaa gatcaaggac 120  
 aagatcagcg gcgacggcca cggcgacggc aagaaggacg gcgagcacia ggagaagaag 180  
 gacaagaaga agaaggacia gaagcacggc gagggccaca aggacgacga cggccacggc 240  
 agcagcagca gcgacagcga cagcgactga gccagctccg gccgcgtgca gtgcagggga 300  
 gatgaacgcg tgggttaatt tggagcgtgt ggtagcatat gtatgtaatg cttgacatgt 360  
 ctcatggatc ttgtaatgta ataaccgggt gcaactgcatg gtgcttgtaa taataacgtt 420  
 aatgaatttc cattgggaat ttggtacat ccttaacaaa a 461

<210> 7299  
 <211> 182  
 <212> DNA



cgtagcagga gtcgtagcac tagtcctgat gattacaaga ggcgtggcag agacagaagt 180  
 cctagtcgta gcaggagccg cagctacagt cctgatgatg acaggaaggg tggcagagac 240  
 agtttgtcgc ccgcacgcag aagcactagt cgctcccctc gcaagacacc acctcctcgc 300  
 aagacaccac ctcttgcga ggggtctcct gctaagcgca atgatgaccg ttctcctggt 360  
 aggcgcaatg atgaccgttc tcctgttagg cgcaatgatg accggctctcc aggctctcgt 420  
 agcccttcaa catgagctga atgtcaaaca act 453

<210> 7302  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-F2  
 <400> 7302

gggtcgacag gaagtacgca cccaacgaca aagatttgat ttttcaggga atttatatgc 60  
 actggagcat gcgcatgtag ttcaaatttg aattatgcac ataaatgcat tgaaaactca 120  
 cttaatgcat aaaaatttcc aaacaaaccc cgaaaaatca caaaaattca cacaacactc 180  
 ctgttggttct atgttgacag gagaaaaaaa cttgaaagca ataagaggca atggatatcg 240  
 tttcgtcccc aaaggtggga cgttccctac cgaaaaccat catgcttggt gtgagaagct 300  
 ccggtttgtg agaagcatat acccaaacct ccccaaatg ggaaacaatt tgtaccacgg 360  
 catgttgatg ccgctccatg atagcatgcc aagtttcatg aatttcagat gagttttgga 420  
 tttagtagaa tttaaaaact aggcattctca ctgttt 456

<210> 7303  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-F3  
 <400> 7303

cgggtcgaca ggctatccga gacaggtcct caaaaatcaa ggccaatggc accaacaaca 60  
 acggaatccg gaacaacatt cccaattccg gccaggtaaa ccggttgctg aaaacaaagc 120  
 attgcactgc aatttggaat tggttaaccg agtgcattgc ccggtcaagc gtcgttgctg 180



cacgcagggg ctggccctgc atggattgat gtatTTTTac actcaagctc gcaatgtaac 240  
 accgacattt gttgttctct agcatctact actatacgtg attgcaacga acggaccaag 300  
 acatctgatg aacacttgtc atgtttccct gtcgaaaatc tttaatatat caggaagcgt 360  
 tgctgctctg catcta 376

<210> 7304  
 <211> 264  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-F9

<400> 7304

ttccgggtcc acgggccatg ttcacatgaa aggccagccc atacagcagc agaacagcag 60  
 ctgctgctcc tcataagctc agcaagtcga gcagtgaatt ggatatactg aatacagaat 120  
 ttgtatacaa cagagcgtgt gttaatactt actgtttaat atacttgtca cagtttgagc 180  
 ttgttctaca atctcattag tcattacttc gtcagtgttt taggcgcatt tgatggatgt 240  
 taggttacia aaattgtatg aaaa 264

<210> 7305  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-G11

<400> 7305

ccacgggact ccgcaagagg agggatggca ggctcgacga attcgtccag gtcgatcccc 60  
 tcagcaatcc gagtggcggc agcaatgaaa gtctccatga atgactggaa gtcgtgcctc 120  
 ttggtcttag caactttaat agcctcctcc tccactcccg acccggcgac caacccccgcg 180  
 atccggcgag cccgagatgg ggttcctggc gacctccgcc atcttcttcc tcgccggctt 240  
 catcgcatgc ctcttctcgc tcctctgctg caaccgcggc gcctccacca acatattcca 300  
 tttgaccctg gtcatttacg ctacagtttg ttgttgatg atg 343

<210> 7306  
 <211> 464

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-021-Q1-E1-G12  
 <400> 7306

```
attccccgagt cgacgggtcc tagaacgaga tcgcatgaaa gcaattcaag aggaattggc 60
gggattcttt cttgaccacg tcatcagtaa aaccggagaa taccatgtgg aaattgattt 120
caaatcctag ctaggggttt gtaattataa gagatcttat acatattgta catgtatgta 180
gccagtagcg tcggatacat gatacgaaaa cttgttggtc gaccaacctc tcggagaagg 240
agaggtcgat cgatcacttc tctcggtatg catgacgaac ttctgtactg aatgggttctc 300
tcgatcactt atgtatatat agtacgtagc gtccaagcac ggacataaga gaggacactt 360
ctctctatta attagctagc taacacaata tatganacac ctaattaaat taacccccca 420
acacccccaa cctcccctcc tttcaaaaana aaaacacaaa aacc 464
```

<210> 7307  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-G4  
 <400> 7307

```
tcacgtggca cgtctgcatc tatccgcgtg gtgacaagta cagcactgat tgcctcagct 60
tgtacttata cctggatgca tcggatgagc tccgtctcga gtccaagaag gtggttgtaa 120
tgactctgtc catcctggac caaaagaatg ggaaacactt gactgcaatt tcaggtctct 180
tggtgtttac ggggtggacgc ggctggggat gggctgattt ccttggactc aagaatctga 240
aggacccggc gggaggctat gttgtgggat cgagctgcgt tgtgaaggcg gatctcacta 300
tcgttggttc atccaatgat ggtagatgt tcacctcatg gcctgatgga gagataatgc 360
ccttgcaccc tacttataac tagacttcta tttgagataa tggtgtagta gcactactaa 420
aaacttggtg gatgatttag tagtaatgag 450
```

<210> 7308  
 <211> 361  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-021-Q1-E1-G5

<400>       7308

```
attccccgga acacgggcat aaatgatacg tctgcatcta tccgcgtggt gactagttca   60
gcactgattg cctcagcttg tacttatagc tggttacatc ggatgagctc cgtcgccagt  120
ccacgacacg tggctggtgt gactctgtcc atcctggacc aagcgaatgc gaaatacttc  180
actggaattt cacgtcacct ggggttttac ggtggatgcc gctggggatg ggctgtattt  240
cctatgtctc agccatctga ctgacccgga cgcaggctat gtcgtgggat caatctgcgt  300
tgttatggcc gatctcacta tcgttgcttc atcgagtgat agggagatgt tcacctcacg  360
g                                                                                   361
```

<210>       7309

<211>       451

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-021-Q1-E1-G7

<400>       7309

```
attccccgga ccacgggtgc tggatcatgcc gtcgccagag cagagcggag gaggccgatg   60
cagggtcgag gaggggcacg agtgagggtc atttggttgt actgcatctg ccaaagcact  120
attgagacaa cgaatttcag ctatatagg agctgaacca tattaagtat gtgcatcctg  180
ggtggaatgc tttctgttca tgagctggcc tcccagcatg tactgttgag aaaagaaaag  240
aaggagactt tcaagttctt atgaaaagca agagagcttc taagttctac aactagagc  300
tggcgtacac gcgttctcag agctcatgtc cagggcttca tcagagctat tttctatgct  360
ggaaacctaa aacaacaaag attttcaatc caccagact aatcaaaatt tgtctaaagt  420
ggaacggatg gtcgtcactt ttgactaagc t                                                                                   451
```

<210>       7310

<211>       199

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-021-Q1-E1-G9

<400> 7310

cgggactcga gtaaagttgc gtggccaagt tcttgttttc aaaaggtttc catataggcg 60  
ttcagtgatca tgacgttggg aataaaagtc tattgctgtt cttattaatg cgacgacact 120  
agtgtagtat gttgtcacca cgctgcatca gagcgtggtg agtggtgtat gttgtcggtc 180  
aggcaaaaag gagatgggg 199

<210> 7311

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-H1

<400> 7311

ttcccgggac cacgggtgct ggtaatgccg tcgccagagc agagcggagg acgccgatgc 60  
agggtcgagg aggggcacga gtgagggatca tttggttgta ctgcatctgc caaagcacta 120  
ttgagacaac gaatttcagc tatattagga gctgaaccat attaagtatg tgcattctgc 180  
gtggaatgct ttctgttcat gagctggcct ccagcatgt gctgttgaga ttcgattcac 240  
tgggagcttt caagttctta tgaaaagcag gagagcttct aagttctaca cactatagct 300  
ggcgtacacg cgttctcatc gctcattggc atagcttcaa cagagctatt ttctatgctg 360  
gaaacctaaa acaacaaaga ttttcaatcc accagacta accaagattt gtctaaattg 420  
gaacgggtgg tc 432

<210> 7312

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-H2

<400> 7312

cccgggtcca aggcatcac agtggtgaat tttggattta gttcactatt ttgacctggt 60  
gaacgagcta tttcattgaa tcgagatatt tcattttgtg tttgattccc attttttagt 120  
gggtcaacta tttgtcatat agtaaattgc tagcaacgag catgtaaaaa cacattactc 180  
ccgagcatca tctctccgtc taaaaaagaa gtggcaagct aatatttcaa aatttgattc 240

acatcgactt ggtaaggat acatggatgc tegtctccc aaattttgaa tgatctgtta 300  
 aacatcctct gctcgggtga attcactcga gcaaataaat gggagacgca aaattaccgt 360  
 cctatgtggg acacgcatca attggcccgt tctacatcga gggtaggttc gtaacttcat 420  
 ccaaccgcgc cttctcctcg gccgaaatg 449

<210> 7313  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-021-Q1-E1-H3  
 <400> 7313

gggtcgacag ggttcctgga tctaggcgaa atggaacact tacgaagctg tcaataattc 60  
 tgcaacaaaa catcactgga tatttcgtcg ctcgaggggg ttcaagatga tcaaagcgta 120  
 catgccattc cataccgcgt cagaaaacgt caagcaggtc aattcactgc acgtcactgg 180  
 acaacgtatt atacgctaaa gacggggaga tacctatctt aacccatctg gaacacattg 240  
 caggttacct acctttcgtc atacggctta acgccgaaca ggtctccatt gctaacattt 300  
 ccgaaaagtt aatgaccaa atgacccact gtgaagcgcc ccattaccgg ccatgaatct 360  
 catcgggtatt cacagttaca ccaaggggtca tcacaa 396

<210> 7314  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-021-Q1-E1-H4  
 <400> 7314

cgggtctcca ttcttctggg gacatcagag acgtcaaaaa cttatacaca ttgtgtacac 60  
 tcataaacac attagaccct taacctataa gtcttcaata caccaaaatc accaaggggc 120  
 actagatgca cttacaagtc acccgggggat tcatggatgg atatacactt tggaccagac 180  
 acgatgaaga gccagtcatt gatggatata ccaggggctg cgacatgcca aatcccgatc 240  
 agagtcacat ggatgttgaa tctaacatca gggctgcggc atcaagctac caatagaata 300  
 ccgaaaagac aaaaacccca ctggaaaacc aagacggcga tgcagaaaat gacgacgacg 360

accttgatat gccagatddd gttgctatga ttgctgattt gcagggccca aaaaaagata 420  
 tggttgggta caangacctg ccatcc 446

<210> 7315  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-H6

<400> 7315

tcccgggtcc acggggagca caaaaaggcg gaggagcaca agaagaagga cggggagcac 60  
 aagaaggacg gcgagcaca ggagggcatg atggagaaga tcaaggaca gatcagcggc 120  
 gagcacaaga aggacgagga gcacaagaag gcggaggagc acaagaagaa ggacggggag 180  
 cacaagaagg acggcgagca caaggagggc atgatggaga agatcaagga caagatcagc 240  
 ggcgacggcc acggcgacgg caagaaggac ggcgaccaca aggagaagaa ggacaagaag 300  
 aagaagaagg acaagaagca cggcgagggc cacaaggacg acgacggcca cggcagcagc 360  
 agcagcgaca gcgacagcga ctgagccagc tccggccgcg ctccggcagc agcgtgcagt 420  
 gtaggcgaga tcgatgaa 438

<210> 7316  
 <211> 85  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-H8

<400> 7316

cgggtctaca ttcttcgctg gacatcagag acgtcaaaaa cttatacaca tgtgtacact 60  
 cataaacaca ttagaccctt aacct 85

<210> 7317  
 <211> 265  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-021-Q1-E1-H9

<400> 7317

ttccccgagtc gacagggtca aggagataat caaatacaag ggattccaag tacctcctgc 60  
 ggaactcgaa gccctttctca tcacacacgc cgaaatcaaa gatgctgctg tcgtatcgat 120  
 gcaagatgaa cttactgggtg aagttccagt tgcattcatt gtgcggattg aaggctctga 180  
 gatcagcgag agcgagatca agcagttcgt tgcaaaagag gtcgttttct acaagaggat 240  
 ccacaaagtt ttcttctgctg actcg 265

<210> 7318  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-A3

<400> 7318

gggtcgaccg gaacgattaa ttaaattccag cacgcagacc tgcattcacga cagacagcga 60  
 gcataggaag gggacgcca ttacattta catatatagc cctgctgctc ctggcccctt 120  
 tccccagttc catccatta ttggttcttg cgaggatggg gcggagaaac ggaagcatga 180  
 agcggagagg agatcaggca gcccttcatg cacagagggc ggcgagggag ggcgcgatgg 240  
 cgtccaagag gatacagaag gtgctcaagg atctgcagta ggatcccccc acctcatgca 300  
 gtgcagggtca tgtgggtgaa catatgttcc actggcacgc aacaataatg ggcccatctg 360  
 acagcccata ttctggtgga cttttc 386

<210> 7319  
 <211> 169  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-B11

<400> 7319

taccggtcct aagatcgcg gacgtatgtg acatcacaag caacgagctg ggcacggtga 60  
 tgctgtcgct ggggcagcgc ccgtcagaag aggagctgcg ggagatgatc gcggacgtgg 120  
 acaccgacgg caacggcgctc gtggaattct ccgagttcct gaacctcct 169

<210> 7320  
 <211> 453

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-B2  
 <400> 7320

ccgggtcgac gggggattct tgatcctgct ggacgtgatg cgactgttct gaaagaagct 60  
 ctaagtgctg aaagtcttga tctgaaagca gctactgata taatatgttc caggacacca 120  
 tcacagctgc aaataatgaa acagacatat tatgcaaagt ttgggtactta tcttgagcat 180  
 gacattagtc agcaagcatc cggcgatcat cagaagatct tactagccta tgttggcatt 240  
 ccacgctacg aaggcccgga ggttgatccc actatagtga cacatgatgc gaaggacctc 300  
 tacaaagctg gtgagaaaaa gctgggcaca gatgagaaaa ctttcacccg catcttcact 360  
 gaacgcagct gggcacacat ggcagctggt gcttctgcnt tacatcacat gtatgatcgg 420  
 tcgttacaga aggttgtgaa gaatgaaaca tct 453

<210> 7321  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-B3  
 <400> 7321

gggtcgaccg gtgaaaaatt ctcatcatag tcaaccctt gaacttgtct ataaccctta 60  
 ggggcaagcc gagctatata gatgggttaca ttaccatccg cgtctgtctt cttcttaaag 120  
 atccatttat tttctatggc tcgccgatca tcgggcaagt cagtcaaagt ccatacttca 180  
 ttttcataca tgtatcctat cttggatttc atggcttcca gccatttgtc ggaatctggg 240  
 cccgccatcg cttcttcata gttcgaaggt tcaccattgt ctaacaacat gatttccaag 300  
 acaggggttg cgtaccactc tggtgcgga cgtgtcctcg tggacctacg aagttcagta 360  
 gcaacttgat ctgaagtttc atgatcatca tcattaacgt cctctc 406

<210> 7322  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-022-Q1-E1-B5

<400> 7322

gacggggaag aagaagaaga ggaagaagaa gaagaagagg aagacgaaga agaggaagag 60  
gaagaagaag aagaggaaga agaagaagaa gaagaagagg aagaagtaga agaggaagaa 120  
gaagaacaag aggaagaaga tgaagaagac gaagaagacg aagacgaaga agaagaagag 180  
gaagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga acaagaagaa 240  
gaagaagaag aagaagaaga cgaagacgaa gacgaagaag acgaagacga agaagacgac 300  
gaagaagacc aagaagacga agaagaagac gaagacgacg acgacgaaga agaagacgaa 360  
gacgaagaat aagaagaa 378

<210> 7323

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-C10

<400> 7323

ggggccacgg gtatttttaa atatcacatg atatgtgttt tgcttggagc gtcaattgat 60  
ttcctttgtg ttgcttgttg tttgaataaa gataccaaga tctgaaattg ttgaatggga 120  
gagtcttcac gggggttgcc tacttaattg actactcatt gatctttact tatcatcttt 180  
cggaatagtt tgttgtttgc tcaaatgatt cacttatatc ttttacagca cggcggggga 240  
tttagtttaa ggaaatggat gaactctcat gcttcactta tatatcttct agagtctga 300  
acagcatggt gatttgcttt gggatatgaat ttagtcccaa tatgatgggc atcgaagatg 360  
gatataataa acgactttca tatagagtga gttgaaaacg acagaagttt gattccttat 420  
gattgtttt 429

<210> 7324

<211> 138

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-C3

<400> 7324

cataccgaga ggttgctgtc atccgtagac atgaggtctt cttcatatgc ttgagcttaa 60  
aattgattga atcttaccaa tgtactaacg tgcagcatgt cataccaaag tgattgtctt 120  
ggaaataaca atttacat 138

<210> 7325  
<211> 301  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-C5

<400> 7325

attcgcggtt cgacggggaa tgctatgaaa cctgctacaa ggagctgacc aatggcggcg 60  
aaaaactcga caatttgtgc accagcaaag agggctcgga cgacatcggc atggcccagc 120  
tccccgaaat ccgcagcttc aacaagggga acaaccgggc ccaaggccaa ttggaattcc 180  
aaaaggttcc cccttgcaat tgccaggaga caaccgaca atttcccaag gagaaccaat 240  
gccaaaaagg caatggtggt cctgaatttg cccgttacca aattgcccaa ttaaggaaaa 300  
a 301

<210> 7326  
<211> 398  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-C7

<400> 7326

ctcgtcggtc gatgggatac actaaactga gtcgtattac tggcgaaacc acaccaccta 60  
cacacttcag tatcccagca tcaacaaacc tgatgcataa tcctgtgata ttaacatctg 120  
gccacactta cgaaataaaa tatattcaga aatgggttcac tgaaggatac aacacttgct 180  
ccaagacaca ttaaaagcta taaaactttg cgatgattcc aaatacttgc atgagggatc 240  
tcatttgcaa ctggtgcaca gagcatggat tcacaatctc agattttctt ccaggcaaag 300  
attcctacag ttatttgcca gagcaattgc atggctactc tatgtcaagt ttgcacaatg 360  
tttcagtacc tctaattgct gggaatgcc a ggaatttt 398

<210> , 7327

<211> 372  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-022-Q1-E1-C8  
  
 <400> 7327  
  
 tcgcgggacc cggcggttcgc gcagcggctg cggaagatgt gcccgcggcc caagccggac 60  
 gacaacccgc agcaggcgcc caaggtgaac ttcgacgagc gcaccgggga gaagctggac 120  
 aacgcctact accacgagct gctggcgcgg cggggcctgc tgacctcgga caacacgctg 180  
 gccctgtaca cgcagacgag gccgctgggtg gagcagtacg ccaaggacga cgcgctgttc 240  
 catcagaggt tcggggaggc gatgcagaag gtgagcaagc tggacgtgat catcaagaag 300  
 aacaacgggc agatcaggcg ggactgccgg atggtgaaca aagccatcga ggtacgctgg 360  
 atgcccattcc ac 372

<210> 7328  
 <211> 238  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-D11  
  
 <400> 7328  
  
 cgcttgcaac gtacggtcgt aaattcncgg ggccaccgac ggtaacacga cactgctcca 60  
 cttcgtgggt catgagatca tccggtcagg aggcttcaac tccgacaaga cagggaacgt 120  
 tcctgacact gtaaattccca gggtcgaaca gttcaagaag gatagcctca ccgtgcttgc 180  
 aaggctcagc aatgttccct cacacatggg gaaagaatgt acacagagaa tggcgaca 238

<210> 7329  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-022-Q1-E1-D2  
  
 <400> 7329  
  
 gggtcgacaa cttgcggcag aatgcggcga atagggtttt cccggacgcg tcgggcaaac 60  
 gggccggccc ataaccaggc aacaagcgat attaaaaatg actcgaaaaa gaaatgcgca 120

cacaacagtt tcgaacacgc gacctcatgc ttactagcgg ccacgccaac aatctgacct 180  
agctcctgaa tatggccaat tgaagtgcaa attttaaagt acaatgtaca acgacaaatc 240  
aatTTTTTttc cttcaaaatt tccaataatt cttgcaaaca aatgtaaacg attttcctta 300  
aatatatattg aaaatcgtga ataaatatcg aaattcgaac aaacacttaa aacccgaaca 360  
attattgaaa acgtgaccac tattttgaaa ttccaattta ttatatacgt tattttttgt 420  
aaaatatata ttaaacaatt ttt 443

<210> 7330  
<211> 323  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-022-Q1-E1-D5  
<400> 7330

gataaagtat agtttaggat ttaaagtcac ctgatcagaa aatgtaggat tcatatgcta 60  
tcaaacgggt caatcttcat gttccaagta aagtggatcat aagactttta aactgtgttt 120  
attgtcctat tgatgtatat gggtaaattt aagtctagag ttaaggatca taggttatgt 180  
aaatttatct attgtctcaa aagtgctaaa ctacagatgc tagataagta gcgagctttg 240  
gggcgtatct aatgtcgagg aacatagtaa agatgtcatt tgcacaagaa gacacacacc 300  
aatctcaagt tcagtttgca cat 323

<210> 7331  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-022-Q1-E1-E1  
<400> 7331

acggtccgag atatchcggg tcgacaactt ttatctagca tccagtccta caaggtaggg 60  
ggatgcaaga acagaggggac aagatccaag tcacggtctg caaacacttc cataaggggg 120  
gcaatttttg caactagaag attagggggg aggtacagag agggaaatca actagttcta 180  
aaactaaaag aagttcatgg ccagaaaatt ttggaacaac accttttacc tttttgtttt 240

cacttgggaa acttgcccaa ctatgccaat ttttttttgc aattctccag atttattgcc 300  
 tggtcagcac ggagaattgc agacacattt gcgttttcaa aaaaatattc cccacgattt 360  
 tatgtcttga tttctcgtcc tttttactat gtttttcatt gtgcaaggag agcctcccaa 420  
 cgc 423

<210> 7332  
 <211> 203  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-E12  
 <400> 7332

atgtaaccta agcgcgtccg tgaggatgag ccgttatgga tgggcttcac caggatcagc 60  
 atttgtgatg acaacatgtc ctcgggggag cactttctga acttccatgt gagccttcgc 120  
 caactcttca gggtttttca tgagctccga cataggccac accaaagtgg tcgatgagga 180  
 ttcactacca ggctccaaag tat 203

<210> 7333  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-E3  
 <400> 7333

cggtcgagaa atccgggtcg acgggactat catagaaagt gcataaaaca ctaggatcaa 60  
 tttgatgctt gataattgtt ttgagatata gaggtggtaa tgtagagtc atgctagtgg 120  
 gtaättatga aattgagaaa tacttgtgtt gaagttggca agtcccatag catgcacgta 180  
 tggtaaaagt tgtgtgacaa atttgttgca tgaggtgcta ttttaatggc ctaccctatg 240  
 agtggaggtc gggattgcgc gatggttaac tctaccaac cttccccta agatcatgcg 300  
 tagtagtact ttgcttcgag ggcaagtaga cttttgcaat aagtatatga gttctttatg 360  
 actaatgtga gtccatggat atacgcacac tcaactcttc actttgctag cctctattat 420  
 accatgcaac ttttcgcagt atcatgcat 449

<210> 7334

<211> 348  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-022-Q1-E1-E6  
  
 <400> 7334  
  
 cgacgggggtt gacgcaagtg cgacgtataa tctgatgaca tgcttgctca tcatcatgat 60  
 cctgttttgac aactttactt cgtatagtac attgaaacat gaactcagca agtgcaacac 120  
 cacacagtga tcaaattcgg cctggggcaa aggtatctcg ggaagaattg tactcagctt 180  
 tcggtcataa togatagccg ctagtggcat ggcaacattg acaaggacat cagcacttca 240  
 agttgagtgc catcaagtaa atgacagtgt acaattgctt cagtagatgg taaaactctg 300  
 cgtctcagtg atgacggatt tgggcacagt ccatttggtg atttaagt 348

<210> 7335  
 <211> 260  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-022-Q1-E1-E9  
  
 <400> 7335  
  
 ggcggagctc taccggcgag catagatggg ggctgttcat cgcgaccaag tgatctggcc 60  
 gctgagcagc gacgccatgg acgcgatgat tcgggagcag agcagcttct gtgaagaaat 120  
 aactaaacag gatcgggtgt cgacaatgtt gtggccgtgt gttgggtgtg attgtttgtt 180  
 tgttgactg gctgcattca ctgggtgggc accacgatct atacgataat gtgtacgttc 240  
 gtacgtactg tattcctgaa 260

<210> 7336  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-022-Q1-E1-F10  
  
 <400> 7336  
  
 tacggctcta aattcncggg tccacgggta gcctctagag ggacgagcag agtagcagga 60  
 ggatgtaacc taagcacttc cttgatgatc atctgtaagt aatggagttc accaagatta 120

gcatttgtga tgacaacacg tcctcgaggt agcactttct gaacttctat ttgagccttc 180  
gccatctcct cagggttttt catgagctcc gacatagccc acaccaaagt gggtcgatga 240  
agattcacta cgagctccag gtatgtccta gaaataagag tgcatgcata tgtggacata 300  
gataaaacag atagtaatta tgacaaggta aatagatgaa acatttacat cagaggtgat 360  
aaaataccta accaagggtc taccgacaat cgtagactta cgagagg 407

<210> 7337  
<211> 269  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-F12

<400> 7337

tggaaaatcc accaatcttg caaaggctgc ttattggctt cttcagcata acctcagtgt 60  
catgatggca gcatgcgata cttcagatc tgggtgctgt gagcagctgc ggactcatgc 120  
tcgcaggctt cagataccta tatttgagaa gggatatgag aaggatccag cagttgtggc 180  
gaaagaagct atccaggaag ccaactgaaa caaatcagat gttgttcttg ttgatacggc 240  
tggccgtatg caggataatg agccactca 269

<210> 7338  
<211> 120  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-F2

<400> 7338

caaatcgaca gtagcatccg ttttccccac aaatacagta tatattatag aggattatgt 60  
ttttaggagt cacgttcatt tggtagaccc aagttacaca ttcgtgacat tttctacccc 120

<210> 7339  
<211> 248  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-F4

<400> 7339

ccgggggtcga ccggcaagac gaacgactct acggagggcg gcggcataca agagggggccg 60  
gaagaacggc aagaagagcg tggacaccta cagcatctac atcttcaagg tgctgaatca 120  
tgtgcacccc gacatcggtg tctcctccaa ggccatgtcc atcatgaact ccttcatcaa 180  
cgacatcttc tataagcccc ccggctaagc cgccaaactc gcccgctaca tcatcaaccc 240  
caccatta 248

<210> 7340  
<211> 77  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-G10

<400> 7340

gaacaatttg aaagaattcc ttgagatct ctgtacgga cctacgtatg aatcggtcaa 60  
atttgatgat gttcctc 77

<210> 7341  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-022-Q1-E1-H11

<400> 7341

cgggggcccag ggagggcggtc aagggtacata acgcgcgacg acgacgacga tgatgagagg 60  
aagccgcggt acaagaagca cgacgacgac gatgatgacc acgagaggag gccgcggtac 120  
aagaaacgtg acgaggacga cgatgatgac gattacacaa agccacgtta caagaaacgc 180  
tacgacgacg acgacgatga tgataggaag cctcggtaca agaagcacga tgatgatgat 240  
gaccacgacg atgatatgaa gcagcgctgc gggaacaacc gccgccgcca cgatgacgat 300  
cactgattat gacatgagtt taagcttacc ctaataagca tagttgcggc ggctttgcat 360  
ccatgaatta cgacatttca ctttttttcc aagcattttt catttcgctg ttcaactggg 420  
caacat 426

<210> 7342  
<211> 367



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-022-Q1-E1-H4  
 <400> 7342

ggggagcacg gccgaaatcc cggcgaggct gcgggcgcggttgaagtcct cctgcacgga 60  
 ccggggggaca aggaggcgct cgatgccgtg gataaacacct tcgggcctga gcacggcgctc 120  
 ggggcccttg acggcgggcgt ggccaacgcg catgggttcg ttggcgccgg cggcgacctc 180  
 gacgtcctcg ccggaaagcg tggggtggga ggccgcgggc caggaccccg ccgggtggcg 240  
 cgccgggagg acgtggtaga ggagcagcgt ctggaacgac ttgaggttgc ggggctcgag 300  
 caagaagcgc ttgaactccg ggtcgatgtc ccgctccagc gcctcgttcc ggggccccaa 360  
 gattgtg 367

<210> 7343  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-A10  
 <400> 7343

gtggtgggtg ttccgcgcac acccaccagg gatgccacgc gcactatacg atgccgggta 60  
 ctgcgccacc gatgtatcct cgcagttgga gttgttgtct gatgacagtg gtgtggctga 120  
 gcgaccacga gtgaccagcg ccattgggtga ttatgggaga agcagacgag ataagctaca 180  
 gggagggagg ggaaaatgcg acgcaggact cgcgagccgt gagggtttat atagtaggcc 240  
 tgtaagtatt ggatttttgg tgatttcacc gagtcgggtg ggaagctcgc gcaggaacct 300  
 gcgaggttac gcatggaatg agctcactga cgattcattg gcaccacagt ttggccaaaa 360  
 gaacgcccc acgcgttgca taagcttgcg ttgtacgcct actgcgatag cggtgtgac 419

<210> 7344  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-A11

<400> 7344

cctgcccgta cggtcgaaat tcacgggtcc acggggcacng ctgcaagaaa cgagctgaac 60  
tgcataggtt ttgccatacg atgtcggaaa aaaacgtata atatataaac ggattcagca 120  
cgaaaatccg catccgatgg agacagccta cgacctgttt ggaattttttt agaatcgtca 180  
aattcgaaca ggaaaaaaag atatgggtcaa atttcagttt tttaaaaaaa aaattgggtta 240  
aatttgggtca aactacttat tcaagaagta ttaatgtgac tacataatta ttcaagaata 300  
tgagtgttac taaataatta tttcaatttt gtgaattttg gtcaaaactat ggtcaaaacta 360  
tgcgtcaagc gtattcaaga catattagcg ttactaaata actaacaatt ttttaaaata 420  
acagtttcaa actcacaacg tgaaatgtgt gacttcatgc tcaagctaaa ctctctg 476

<210> 7345

<211> 216

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-A12

<400> 7345

tcatgcaact acctactccg gatcccgatc cagcctcagc ttcacctgac gccggcccta 60  
attttgtgtg atcaaatttt tgctactagt actaactatt gatgatcact gttgcaccat 120  
ttatttagtt tatagcgtca caactttcca ctgtctcttt tcattctcta ccttgttata 180  
gatcgtcggc tccagctcta tcgaacgatc catgca 216

<210> 7346

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-A3

<400> 7346

cgggaaagtt cttgtctccc tggtcattgg gagcaggggc cttggcaagc tcaagagggt 60  
gctcttgggc agcgtcagcg attacgtcgt gaacaatgcc gcctgccctg tcaccgttgt 120  
caagccagcg agtaaccatg cctgatctca gcacgcgaaa tgtccacatg tgttttaatt 180  
tgccagagtc ctatatatcc agttggccgc aacttattga accatccagt gttatttgta 240

ataataattg acaattagcc tgtggatgat tcccaggtgt gtgtaaacgg tgcattgtgc 300  
 ctgtacatcc tgtacatttg tgtgcttata ttcagcctag cttttgtccc atgagtcagt 360  
 ccgtgcagct gtttgttgca cacagtttgt 390

<210> 7347  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-A4  
 <400> 7347

cgggcatcac atgagtgact cctcccaggt cattgggagc aggggccttg gcaagctcaa 60  
 gatggtgctc ttgggcagcg tcagcgatta cgctgtgaac aatgccgcct gctctgtcat 120  
 cgttgtcaag ccagcgagtg accatgcctg atctcatcat cgcacatgtc gcacatgtgt 180  
 tttagtttgc cagagtccta tatatccagt tggccgcaac ttattgaacc atccagtgtt 240  
 atttgtaata ataattgaca attagcctgt ggatgattcc caggtgtgtg taagctgtgc 300  
 atgtgtcatg gacatcctgc ttatttgtgt gcgtaccctc agcctagctt gtgctcaatg 360  
 agtcagtccg tgctgctgtc tgttgc 386

<210> 7348  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-A7  
 <400> 7348

cacgggaaat tcattaaatg gataaatgca tttgccatgt tatgggtact taaaagaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aataaaaaaa aacataaaca agaaaaaaaa aattgaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaagggggc cgcccaaaag gttcaaacct aagttaccct 180  
 tgaaggcaat gtaaaacccc ttcaaaattg ccaccaaatt taattcaatg gccgttcttt 240  
 taaaaactcc taaacgggaa aaaccttggg ttaaccaaatt taaaccctt tgaagaaaat 300  
 ccccttttca caattggggt aaataccaaa aaggcccaaa cgaattgcct ttccaacaat 360  
 ttgccaaccc taaatggcaa aggggaacgcc ccctg 395

<210> 7349  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-B10

<400> 7349

ggtaccaata gtgaatcgta tctctctcgg ctccccgctc cgagtcgcgt cgcgttagga 60  
 gaaaggaacg aaaccggaa aggtttctcc gccgacgcgg aaaggggaga tagccgggaa 120  
 gggaggcaaa ggctgctcg cgggtcaagac gacggccgcc aagactgccg agaaagacaa 180  
 aggaataag gccccatct cccgctcgtc acgcacaggg ctccagttct ctgtgggccg 240  
 tatccatcgt cagctgaagc aaaggactca agccaatggc cgtgttggtg ctactgcgga 300  
 ggtctactct gctgctatcc tggagtacct gacagctga 339

<210> 7350  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-B11

<400> 7350

aagaagcaag aggaccttga acggctaggg gccgacgcgt tcgttgtcag caaggatgcc 60  
 gaggagatga aggctgcgat gagtaccatg gatggcatca taaacacggg gtctgcaaac 120  
 atccccatgg cccctctctt ggggctactg aaaccaacg gcaagatgat catggttggc 180  
 ctcccagaga agcctatgga gatccccccc tttgctctgg ttgctacgaa caagaccctg 240  
 gccgggagct gcatcggcgg catgaggggac acccaggaga tgctcgacct cgccgccaag 300  
 catgacgtga cggcggacat cgagggtgatt gacgtcgagt acgtgaacac ggccatggag 360  
 cgccttgcca aggcggacgt gaggtatcga ttcgtcatcg acatcggtaa cacccttgac 420  
 aaagccgccc ccg 433

<210> 7351  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-023-Q1-E1-B12

<400> 7351

gggtccagtg cacgttgccg atgaagatga aggctataca cctcgttctt ccttccttc 60  
gggtctcacta tgcagagaaa ttgaagctac agcttctaac gctgtctacc actgcaaaat 120  
tggttcagtt gatgcagcag caaagatacg gtacctagat acccggcgtg cttctaata 180  
tgaagtanaa acatttgaat acaagcttct tggggaagta cgaatgatga atgctctaag 240  
gaagcacaga tccatagtgg acatatatgg tcaccaactt tcttctaaat gggttcaaga 300  
tgatagtgat aacgagtaca ggataatgca gtctgtaatt ttaatggaat atgtgaaacg 360  
acgttcactg aacggctatt tgacanaact actgagagac ggcaagaaac atgtacctgt 420  
ggacctggca ttttacattg 440

<210> 7352  
<211> 405  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-B3

<400> 7352

cggcgagtga ttcagctaag caactagcga gtagtagtag taaactctgc atattagggt 60  
tgacgaagtc aaacttccta aagtttgacc aagtttatag aaaaatataa acatttacca 120  
taacaaatat gtatgatgtg aaagtacatt caataatgaa tctaattgga tttatttggt 180  
attgtatatg ttaatatatt ttgttataag ctttctgaga gtttacaaaa cttgactttg 240  
accaatgcta atacgcggac ttaaataaaa acggagggag tacacatttg ttttcttagt 300  
ttgtagtgaa cgaatcattt gttgaaattg tgaaataaat atattaggct attgacttcg 360  
aatgtaatgg tctatacaat tcaatagtta caatcaatgg tgaat 405

<210> 7353  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-B4

<400> 7353

ggggtgcacgg cgacacatcc agcgaatccg gaaatgaata ctgctcctcc ggtctgcgca 60  
 tgacgttagt acatctgcgt actgccgtga tatttaccag tggacgacca atcgatatgt 120  
 ttgcgcgata accatatgtg gaaggattaa ctcaactacc aaatggcccc gtgcgaatgg 180  
 gtgtacacgt actgtagtaa ttataaact gcagaatcaa gtgtcgtatg caacttgtat 240  
 caggaagtcc tccgtatcaa tatcgtgtac gggtttgcta agactcgagt aaacatttgt 300  
 tttcttagtt tgtagtgaac ggacgcactt gatgatcctg gcatacgtat gcatgcagcc 360  
 aacgt 365

<210> 7354  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-B5  
 <400> 7354

gtccacggga tgatattaac ttccgcccct gatgattggc aaagcttgca acaatcatac 60  
 ggttagtatg caatcatcat tggatcaacg tttgtgcaa gtataacaga tgcgatggac 120  
 taccatgata attgatttga gtctactgat tgccagaaac attgcgagca cgaacagaca 180  
 ttagttaagt cacatgatcg taattatgcc ttgaacagac gctgtatcaa ggacctcata 240  
 gatgcgaatg atgattacag caccaaaagt ttgcataatg tacagactgc cacagactgt 300  
 actgtgcata acatattcag cttctcgtat gatggatgct cattctatca cgactatcgc 360  
 aatgaaatta tccgatccac ctgcccga 388

<210> 7355  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-B6  
 <400> 7355

ttccgccggtc cacgggtcca aaataccttc ggcacagaa aagtgcgtac gtggtgggca 60  
 gtctcacgaa tgtctcgatg atgtgaataa catcctgttg tttggttcag atcgaagctg 120  
 tagcacctgg atgatgcatg ttcctttatc tgtacagtgt gatgttgtga atttggtggg 180

gtttgagaat tcgtcagttg agttgcccta tgctattcaa taacaacatc attgttttagt 240  
gcactcatgg atgcgactga tgaatagagc agctaaaatt tgcacaaaag acagtactgt 300  
cacggactgt actgtgcatg acatattctg cttttcgtgt gttg 344

<210> 7356  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-B7  
  
<400> 7356

gggccacggg atcactgcag tgtgctgatg ccgcatgggg cgtcaaatta atgcaacccc 60  
tccacaacgc cgtccataaa ggccatgttt cattggcaga gcctttccca ccattttgct 120  
ctctctctct ctctctctct ctctctctac ccttggttag ctcttcacag tgctatataa 180  
ggggcctcac ctggcgagcc attcttccta ccaccacccc accatgatgt ccatgcatac 240  
ctccccacct ctctctcct ctagcgtcca gctgccgagc ccgagccaca cctgctctcg 300  
gcacgccatc ggcaaccggg gtttctttgc tgactgtctg ccgaggcttt cctccacagc 360  
caggcgttgt cgtccactcc gttggctcaa gggcggaacc tcccagggca ctgctccccg 420  
ctgattcacg gcctggctct accctctctg 450

<210> 7357  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-B8  
  
<400> 7357

ttcgcgggtc cacggggtct gttcaatctt ctacagaata tagtcctcat cagagatccc 60  
gaggactcca caaagtacta tccccgcttt aacctggaag atacttcaag ttttagggac 120  
ttggatgaac atagcaaaaa tgctcctaga agattatacc atgactatta tttcgttcgc 180  
caagaaaatc tttggcgaca aaatgcactg aagactctac ctgttctatt gaactgttcg 240  
gatatgttgg catgcgggga agatcttggc cttatccctg cttgtgttca ccctgttatg 300  
ctagaactcg ggttgattgg attgcgtatc cagagaatgc ctagtgaacc aggcttgga 360

tttgatattc cgtccaagta cagctatatg acggtttgtg ctccctcatg tcatgattgc 420  
tccacattac gtgcct 436

<210> 7358  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-B9  
  
<400> 7358

ggggataagg aaagtgacgt ctcggagggc gaataggaaa tctcgggaagg agaggagtat 60  
gacaacccca aggccagtga cgccaagaag aaacaaatat gcgaggggtga ggagaatggc 120  
gaagatgatg aggaagaaca agaggagcac gacgggtggag gatgtgacga cgatgatgat 180  
gatgacgacg atgatgacaa tgaggacgac gacgatgatg acgacgatgt cgctgctgaa 240  
tacgatgagg atggagtata agaggaggat gacgaccagg acaacgacga tgatgaggag 300  
gacgatgacg aggactcgct ccaaccccc aagaagaaga agaagttaag cccttcgaag 360  
ccgctgcctt aatcaccatg ccatt 385

<210> 7359  
<211> 333  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-C1  
  
<400> 7359

ttttgttaag ttaagcgagt cacgtagcat gcaagtatgg tataagttgt gtgacaaatt 60  
tgttgcatga cgtgctcttt tgattgtctt ccttatgact ggcagtcggg gaccaacgat 120  
ggtcatttcc tactattcta tacctcttgg ggcattgcgta gtagtacttt gcatcgaggg 180  
ctaagtcgac ttttgactt atctatatga gttctttttg actaatgtga gtccatggat 240  
acacgcacag tcatecttcc actttgctat cctctattag tagagcgcag ctttcacagg 300  
tctcatgaag cctttatttt tcttctacaa ctc 333

<210> 7360  
<211> 435



<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-C11  
 <400> 7360

gtcgggtacg gaagangttt cggacgcgca cgacgggggt ctatggttgt gcacaaaggc 60  
 tccggttttag gcagcagggga aaatcacgac catggttgga gatgacgaat taagataaca 120  
 aaggcagtgg gatattttgc aagtgtgtca tgggtgaatgc catattaacg aaatatctat 180  
 gatagctcca tcaatattat gaggatatgt tataaagaga aatcaccatt gtgattatcc 240  
 ctcgatttaa attgactgag gatccataca attcaattac atgagttgca tacattaaat 300  
 gagatgatgg catgatgaca tgatgcaatg caacaagcaa ctaaaacaca tggcaaagct 360  
 cggaataact ggaagtcttc tggggcgccg ggctcggggc gttacaacac tccactacta 420  
 caggaggatc tcgtc 435

<210> 7361  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-C12  
 <400> 7361

atctgcaagg aaattgagag catacaggct gatgaacaca tcgacatttg gcgaattagc 60  
 ctcaactcct tttcaatttt gacgacacaa tatgatgaag aatagtcaca gtctgaatat 120  
 atgacactta cagtctccac gtctgtatca tccagcatca ttgggtgcaag gtccgagagc 180  
 cgaacctcct tggcctccac ctgagttgga ttggacgcct ttgccacctg cacacgcata 240  
 cacagaagag acatgataac cataccaaat cactttttta tttattgcat ggatggcagg 300  
 gcaattctga atatgaagtg actccagaca cttaattcta ttgaaccatc aaaagagatg 360  
 ccacacttta gtttctacaa aaggccccta gtcaacatat taacatcacc ggcaatgttt 420

<210> 7362  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-C4

<400> 7362

cggggtttcgc catgtgtttc atttgtgccc gcccttttat ttgtgcattg catcatgtca 60  
tcatgccatc atgtcatttc ttttcttaac tcgactaaat aaattgcatg gatgttcggg 120  
ccattttaa at cgatggatat tcacaatggg gattttctcat tataacatac cctcccaata 180  
ttagggagct ataatacata gtccatttaa ttggaagcca ccgctagaga cttgcattat 240  
aaatccctct catttctaaa ttattttgca tccatgatct tttctccgca tggctccttt 300  
caagttgtgg cacattggca ttatgctgcc aagtggctac ttgttaattg tcagctcaat 360  
tataaaatat ttggaccctc aaatattttc t 391

<210> 7363

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-C5

<400> 7363

taccgagtcc ataattcgcg ggtccacggg ttacatagaa ggatcataaa gcaaagctca 60  
aaactagatc atactaaagc tttattctac tagatcaaga ttttactaaa aggatcgaac 120  
taagaaaaac agtaaagata ggagtgtgat ggtgatacga taccggggca cctcccccaa 180  
gcttggcagt tgccaagggg agtgcccata cccatgtgtt tatgtctctt tcttcggagg 240  
tgggtgatgtg atattcttgg cgatgatgcc cctcaggata caattctctt cctcgagtta 300  
ttgacttgct gcttaaggtc cattatttcc ttacggagct tgcccgtgac gactaaagct 360  
cctttcacca atggatgttg tatagctgcg ggagaacaag taacactctt tttcatattt 420  
tcataagaaa gaaatctaac attagaaagg atgaccgagt ttggga 466

<210> 7364

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-C6

<400> 7364



agagtggcgc tgatggtgaa ggtaccagca gtgccatcct ccttggcaga caccttctta 120  
gtctcaggtg gagctgccat tgccttctta cacttgccgg tggagctcga tgggtgcgtcc 180  
tcgacggtag cgcagcactc cgaggagggtg cgcttgccgg agttggcatc agagctcttg 240  
ccggactggg tcttcttcgt cccccggga gcttcagegg caagtgtcct ctgttctgcg 300  
gcagctacta cttcccggta gatcttgtcg gcacaagtaa gagcatcctt cttgtcgcca 360  
gggacaatga tgacacttat gacgccgagc attttcagta cgttgtacgc atagtgagag 420  
gctgctatga ac 432

<210> 7367  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-D11  
<400> 7367

gggtccacgg cgtagcttaa aggggttaaa gcgaacaaag gacgcagaga gtttttatac 60  
tggttcggcc cctcgcggtg aaggtaaagg cctaataccag ttgttgtgga attactaggg 120  
tttcgatgac cagggagaga atccgctatg cctggctctc gagttgttgt ttgttgtccc 180  
taaaccgccg tcgggtcgtc cttttatata cacaggttga tgcccgacgg ttacagaat 240  
cccgaggccg gtcataaac gtgtccggct cggtttctac ctttcctatc ttacaacaca 300  
agttacatat gatatggcgg tttaggtcta catgccataa cccgcctcta ggccctgagc 360  
cttcgtaaag cgccacactc cttgtcctca tgggcttcaa atataaataa ct cattatgg 420  
ggataaccgg gactctcct 439

<210> 7368  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-D2  
<400> 7368

cgggggccacg ggcgggacga actttgttgc cgtccccaat acagcaagag ggcacatagg 60  
cggcgcatta aatacgtttg tcttacagtg tcaggtgatc aacttgtaca ctgtagatac 120

tttccacctc ctgtgtgcca ctgtggcgac cgctttgaca tataaaagga ggcccagggc 180  
gtactgtgga aggattcgga ctttttggac tgggcatgca tggcagctag ttcaagagct 240  
caagaacacc aaatatacac agacaagcag gactagggta ttacacatcg tttgcgggccc 300  
gaacctgggt aaaaattccc ttgcgttact cgtctagacc tgctctttgc gcagcccttc 360  
acccccgcca actgt 375

<210> 7369  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-D7

<400> 7369

catcgacaac gcaaagaagc ataatgctgg gacaagcaaa gctgctcata gcaccacatc 60  
gctcaataca aagaggcttg atgatgatac agagaatctt gctcatgagc gtgtgccgtc 120  
agacctgaag aagagcatta tgcaggctag aacggacaag aagctcacac aggcacagct 180  
tgcacagctg atcaatgaga agccacaagt catccaggag tacgagtcag gcaaggctat 240  
cccaaaccaa cagatcatcg gcaagctgga aagggctctt ggcaaaaagc tgcgaggcaa 300  
gaagtgaagc tgcgtgtgca tctgacagga gtcgaggctt tcaagagagc ttggctgggc 360  
aagtttaccg ctaaataaag cttgtctact aaatcatgcg acttaagaaa accccggagt 420  
ttggtatttc gctcagggtt gggatgaatgt aa 452

<210> 7370  
<211> 347  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-D8

<400> 7370

tgatcacgtt tctgggacaa acttcgcgtg atcactgcac gacttcgact catttgaaag 60  
acgtgtgaag agttaagtga caatctggca catgatcgta tctcgtcgga cctaacttag 120  
aacattacgc aagctagatc cgtcaatcag ctcatatacg tacatcttgc acatctcatc 180  
agtgtaagc aactggatcat ctattagtag aagtcaggca atgctttctt atcacgaata 240

catcattggt atcctcgaac atggatcatg gtaccgtacc gtcacgtctt actcgaagct 300  
gcgtgtgtat ctgacaagag tctacgattt caatacagct tggctgg 347

<210> 7371  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-D9  
  
<400> 7371

tgcgcagtat aagagaggct aacaatggtg gaagggtgaa aggggtgctta taatccatgg 60  
actcaacatt aatcaaaaga actcatacac ttgttgcgaa aatttagaag tcatcaaaaa 120  
tcaaaacact acacgcatgc tcctaggggg atagattggt aggaaaagac catggctcgt 180  
ccccgactgc cactcataag gaagacaaac aataaataaa attgtgctcc aacttcatca 240  
caaagcgggt caccatttgt gcatgctacg ggaatcacia acttcaacac aagcattctt 300  
taaattcata atcaccccaa ctaccattgc ttgatacta tcacctccat atctcaaaac 360  
aattatcatg catcaaactt atcttagtat tcaa 394

<210> 7372  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-E10  
  
<400> 7372

ggtccacgac gtggccggtc agtaagggtc aatacgggtc tctacgatga gctagtgatc 60  
gtataatcac cgcaaaacta tatatactga ccgtaaagag cgtattgtta catacgttga 120  
ccgccagtgt attttttctca tttcaaatta agccatatta accggaaagg acgcagtatg 180  
gactagtact agtactgctt tgatgtgtcc catcaactcg ccgaacgagg agaagcttgc 240  
ttactacgcc tctccctcgc ccacgtgcgc ggtgggtcgc aggacgagga gatgggtttg 300  
agtacagcgc cctctccctc tccctcgccc tcacagtgga cgtgcagcag ttcaattggt 360  
gtcagattgc cagaagcata atgtgtactg tagtatcatc attgttggac cttctgaaga 420  
ggcgacgagc caag 434

<210> 7373  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-E11  
  
 <400> 7373

ggggtccacgg cgggcgcata agtaaataag tgaaaaatta tctttagttc accgaccgaa 60  
 tattccctta agaacgctag ctttcgactt caccagctct gaggtacaca tccggctgac 120  
 ccagcagtaa caatcgcaga gggctccctt tatgccctag ccgaattaac gggaaacgtan 180  
 ggcataaata caagagccag gcaacctagc ttggccaaaa cttaagtcac atcgatgcac 240  
 ataatggtga ataacgggta catgccgaat gataacacac gtgttgggca taaagcccgt 300  
 atgaataagc ttctgttaaa gaatccccca ggtataatga gcgcggatag cgcgtcagtt 360  
 gcgtgcaaac aaggcatgaa tgggctccta aaggctgtga gagaaaaaga aaaggagaag 420  
 gagaaaaata taagacagat agtgtataaa aat 453

<210> 7374  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-E12  
  
 <400> 7374

tccacggcac ctcgttgaac tgcagatgca caaaacatag tgtaccacct ccttcctcaa 60  
 cccaaaattt gaatttttcc accaattgca aaacctggaa gaataaaaaa aaagggtcaa 120  
 caaccaaag gaacctaacc aatcataatt gccctaagaa caatggtctc aggttcaagt 180  
 caagaggaag gccttgaatg cccatttgct gtgaatcctt caacatcgta nagaacgttc 240  
 ttatgtcntg tgggtgtggtc acacaatgtg caagaactgc atcttaagtc ttcagtgggc 300  
 tgttgtcaag ttcncaacct ttectatcca gctgcctctc tttgtctcgt gtccttgggtg 360  
 caacctatta tctttccggc tgggtgtacaa gggcaacctc aagttccac gtaagaacta 420  
 ctttctgctg 430

[illegible]

<400> 7375

<210>	7376
<211>	402
<212>	DNA
<213>	Triticum aestivum

<400>	7376
-------	------

<210>	7377
<211>	452
<212>	DNA
<213>	Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB104-023-Q1-E1-E5

<400> 7377

gggccacggg tctgcaacaa tcaaatccgt atgtatcttg caaatctcta tgtctccac 60  
ctggacttga tcccggatgg aattgaagcg tctctcttga tgtgcttggt tctcttttga 120  
aatctggatt cctttgccaa ggaaattgca ccagtattgt cacaaaagat tttcattgga 180  
cccgatgcac taggtatgac acctagatcg gatatgaact ccttcatcca gactccttca 240  
tttgetgctt ccgaagcagc tatgtactcc gcttaacatg tagataccgc caccgacgtt 300  
tgtttagaaa tgcaacaact aacagctcca ccattcaata taaacatgta tccggtttgc 360  
gatttagaat cgccccggtc agtgtcaaag cttgcatcga cgtaaccatt tacgatgagc 420  
tctgtngtca cttcataaac gaagaacata tc 452

<210> 7378  
<211> 105  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-E7

<400> 7378

cgggtttaaa ctaatcatat cgatatgtgt catgcaacgc tataagtcga taaagtgaac 60  
ttgatgtcgg atggagctta tgcgtcacgc atgtagtgcg tgggt 105

<210> 7379  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-E8

<400> 7379

aattcgccgg tccaccaact cctgctgctt aatgaggcca gtgagtatgt cgatcatgcc 60  
ggccaaggac ttcagcaatg ccagctcatc gcgatcgccg acacggcgag tgcgcttggt 120  
agagcccagc gtgcccgcga gagcttgctt gagggcttcg tggcgcgccg agatatctct 180  
gttgcggtcg cctctacgcg gggggacctc tctactgctt acgtggcctt ggtctttgct 240  
gcctgggttat atgtccaccc gaaactcctc ctaccggtca tggcggaatg acttgacaag 300

aaagaccagt tttgtgggtg atgaggagag gaactgtgaa gtgatttttg agtgggtagt 360  
 ttttatagcc tgggtgctaag tgtgaacaca tattagtttg atctgtgtga acgtatttgc 420  
 aattacttat tgcgttgtaa tctgcagtgt gacgag 456

<210> 7380  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-F10  
 <400> 7380

ggggccacat cgacatcgcc aagaagcata atgctgggac aaacaaagct gctcatagca 60  
 ccacatcgct caatacaaag aggcttgatg atgatacaga gaatcttgct catgagcgtg 120  
 tgccgtcaga cctgaagaag agcattatgc aggctagaac ggacaagaag ctcacacagg 180  
 cacagcttgc acagctgata aatgagaagc cacaagtcac ccaggagtac gagtcaggca 240  
 aggctatccc aaaccaacag atcatcgcca agctggaaag ggctcttggc acaaagctgc 300  
 gaggcaagaa gtgaagctgc gtgtgcatct gacaggagtc gaggttttca agagagcttg 360  
 gctgggcaag tttaccgcta aataaagctt gtctactaaa tcatgcgact taagaaaacc 420  
 cggagtttgg tatttcgct 439

<210> 7381  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-F11  
 <400> 7381

ggggccacgg cgcaggatct acatagacga tgcaggatgg ggtcncgatg ccgattcgat 60  
 cgagtacggg taccgggtcc ccttcggtgg catacacgta ttcattggca agatcgggtga 120  
 gcctgggcct gagccggaca tctgcaccga cctcgtcgag acggctcagc gtgcaagatc 180  
 taccaggtt aaaccggcca tgaagcgtgc cttcattgga gtcattccacg gaggagagcg 240  
 tgacgacgaa tcagaacact gtacgagac catcgcttat tccggcgacg aatccttgac 300

cggagagacc gaatcgctat accagttgca agacgaccag attaggggct gttctgatgg 360  
 cgacagtatt ccggaccccc cgggccaggt caaccgggtt ggaatattca tggccggcac 420  
 acatgcggcg aatcactc 438

<210> 7382  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-F12  
 <400> 7382

cccaattaac aaactcccc aaaggcttcc cccaagcccc ggctgaaaaa attaacaaca 60  
 ttttccacaa agggaaatga attcccacca taaaccatta ccggtaaaca tacaggttaa 120  
 aacccggtac caaagggtcca agcagcaagc catcaccccc ccatgagcca aggaccctcc 180  
 ttttccttcc ttattaatct agagatccct tttttgttta acctaategg acatgaagct 240  
 tcctcaagct tgtttttcat tggctcttgc taaggtttgg tcaagttgtc agtccaaca 300  
 tgtggtagct atgaacttat gatgatgtat gtagtacagc atggctgcat gagttttctt 360  
 attcttgc 368

<210> 7383  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-F2  
 <400> 7383

cggggccacg gggtttctgac atgacatgac ggtggaaagt gaaccacatt gcgcggcgca 60  
 acgctgtgca ttgcacagga gcgagtgtct cgcgtaaaag ttaactcgct aatgctagtt 120  
 gaccattaga cgtgagcatg ccacagttgc gtgattaggg aagacttttg ctctgtcaca 180  
 caaagcacat gtggctaagc tgttccgatt ttctagcatg tggagcagat aaaactgaag 240  
 tgccagggtta gtggtgatgg tttttaaaca caacgacagt gttgcatttg ctggtcaaaa 300  
 cggacagacg aattancatg aaacagatta aacttgctta gtgaagtgat agctaagtgt 360  
 aacaaacttg ggtcttcgct ggccgccaat gctccacgtc ngcacttgac anactggttc 420

cgccagccaa cgttgctcca cggcatgcat gcacatg

457

<210> 7384  
<211> 281  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-F3

<400> 7384

ggcgagcaca cagagaagaa ggacaagaag aagaagaagg acaagaagca cggcgagggc 60  
cacaaggacg acgacggcca cggcagcagc agcagcgaca gcgacagcga ctgagccagc 120  
tccggccgcg tgcagtgcac gggagatgaa cgcgtgggtt aatttgagc gtgtggtagc 180  
atatgtatgt aatgcttgac atgtctcatg gatcttgtaa tgtaataacc ggctgcactg 240  
catggtgctt gtaataataa cgtaagaa tttccattgg t 281

<210> 7385  
<211> 221  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-F4

<400> 7385

gcatcctagg cgaggtgacc gtcacatggt tgctgttcga gggaaatcggc taccacctcc 60  
tcaccttccct ctgccacttg ctcacgtctt tctcacctgt cagcttcgtc tgggtccaacg 120  
ctgcatcctt catcaacagg tcccccaaa agttccctaa ggtcatttta tctaaaaccc 180  
aatccctggt aaaaccccag ttcctaagaa aaaaatccat t 221

<210> 7386  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-023-Q1-E1-F5

<400> 7386

attcgccggt ccacctccgc agacgaagtg cagcgcatga tggcggagat cgacaccgat 60  
ggtgacggct tcatcgactt cagcgagttc atctccttct gcaacgccaa cccggggctc 120

atgaaggacg tcgccaaggt cttctgaatc agttcatttc acctcagccg tccgatccag 180  
gagccgatcc atctacgtac ggcttcgtat atcaatttca tgcaactacc tactccggtc 240  
ccgatccagc cccagcttca cctgaggccg gccctaattt tgtttgatca atttttttgc 300  
tactagtagt aactagtgat gatcactggt gcaccattta tttattttat atcgtcacaa 360  
ctttccagtg tttcttttct ttctctacct ttttgctgat cgtcggctcc agctcgatcg 420  
aacgatccat gctgctaatt gtttggtg 447

<210> 7387  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-F6  
<400> 7387

cacggggtca tgtaaaatgg tacggttcac ggagtctata acgactggga ggagtgtcgg 60  
agacagggtc accgattcaa cggtaacagt tacaagggt acgccactaa ggccgaagcc 120  
gaatctagac accaccgcca tctaacggga gaggggacgg agcgttggag gaaccggatg 180  
acgacgagtt tcatcgtgat gaccgcagct ctcttctatg tgatggtact ttatatgatc 240  
gatatctact tgtaatgtga agacaaactc gcggtctcga gacttgtaat ataattgttct 300  
atcattgttc ggtcttttca attcggagac taatatgatg acttgatttc gaagactaaa 360  
atcatgaatt gtactcacag actaatcatc tactgtactc catgaatcca ttgtttaagt 420  
gtgctgtcca tattttgtcc aatatacatt t 451

<210> 7388  
<211> 280  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-F9  
<400> 7388

acatggctga gcagactcct gagatccct gatagtgcct ccagcggttt cggcggtagc 60  
atgggctcgc ccgtgagatg gaacatggcc gcacctttca cgggtacacg ctcttcagaa 120  
tgcacgtct ggctgctatg ttctctggc tgtttgggag gcaccaacct tccccatttc 180

ctcctggccc ttttctggg gacaacctgg cgaaccttcc ctaaccctg gccagtggt 240  
cccgaactaa gttctgttcg acactcgcgc cccgactagt 280

<210> 7389  
<211> 383  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-023-Q1-E1-G1  
  
<400> 7389

ggggccacgg cgaacaagga aaggagcggc aggggtgcag ctgtgtgagg gcactgggtct 60  
cgcgctgag gagcgctct cctcgggagg accggaangg agcgagtcaa actcatatcc 120  
acttcagagc aagggtgggtc tacaactgct aatttaaagg gattcgattg tccctcgtct 180  
gagcataagc atgataaagt gcagcaactg acttggctta ttgttttga aatcgcaacc 240  
ggtgctctcc tgcttgtttt tgtgattact ggtgtcgtta ctgcctacag aagctgcaat 300  
ctaaagcctt ctatacgaat atcatcatgg agcagatcaa aaagttggag cgccgagata 360  
acagtactga ttggccaata acg 383

<210> 7390  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-023-Q1-E1-G11  
  
<400> 7390

aggcgctcct aagatcgtag aaggctctga ttaccaactt gtaacgcct caatgoggct 60  
atagctccca cgtgtcaagg cagcacttaa aggcataacc gcattgaaag caatgtcgca 120  
agtcaggcaa tcattacaac atcccatgta atatataata aaagggggag ataacatagt 180  
tggtttacac tcgccagtc acatcagagt acataaataa catccatcaa acaaacactc 240  
atggccctac tacggcgcca aaatagaaaa gaaccaaca tgcgacaagg tcctgaatcg 300  
ataaccccaa ctaggcacca ctactgatca tccggaaagg acacgtagta tcgctgagag 360  
tcctcgtcga actcccactt gagctcgtta tcgtcaactg gagcagaaac acctggacct 420

gcacctggag ttgt

434

<210> 7391  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-023-Q1-E1-G3  
  
 <400> 7391

cggcgaggtc ggagaggcag caacggcaag gtaatcgacg atgaaggacg gtgccggact 60  
 tggagttgga ggatgatggc gacggcttca gggcgaatcc ggccgagtcc ttgcgcgggg 120  
 aaggagattt caaggttgcg gacctcctgg acaaggttgt ttcctgcggg gaggccggta 180  
 gccgtgcttg tggtggtcct cctgtgggct gcaatttgca ccgtgagtcc gtcggtccta 240  
 gctccagctg caccgtggca tcacggcgct ggagcggcgc ggctcaagat ggcaatgggg 300  
 ccccgaaacc cgctccccg cgggttttta ccctattang ggacggggat gggcgtcttt 360  
 ttaaccccat ggggctgctg ctgggtaaat tataaaacc aacatgtttc acgggtttta 420  
 accggttga gcaatacccg aaccgaaac ccgccatccc 460

<210> 7392  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-023-Q1-E1-G4  
  
 <400> 7392

gaaaggatct gtcaaatata tcatcagtat caatcactat atgacaccac acaacagata 60  
 tgctgctgtc agcagtgtc tctaaataga cactgcaatt atcttataca tcattactgt 120  
 tgtcagcaat gctctctaaa tagacactgc aattatcatg tacatcattg ctgctgcaat 180  
 aaaccactaa gaattattca atatctagcc tagcgccttc gttatcatca accgaggggt 240  
 gaggcggagt taaaaatct gaatgagaaa ccaagggatt gtccaagtca gcgacatctt 300  
 tgttatcttc agagctgtta gaagcagctg agatggcgtc acccgattct gaatgtgttc 360  
 tgtccacata tgcttcgggt aaggagctct cggccacatc agcatcgccg ttatgccgag 420  
 caatcagatc ttctcttctg acaaaatta 449





gtccacgggg ataaggatgg tgacttcgcg gagggcgaag aggaaatctc ggaacgagag 60  
gagtatgaca accccaaggc cagtgcgcc aagaagaaac aaataggcga gggttaggag 120  
aatggcgagg atgctgagga agaccaggat gatcaggagg gtggaggacg tgacgacgat 180  
gatgatgacg acgactacga cgatcacaat gacgacgacg actatgatga cgatgatgtc 240  
gctgctgaag acgattgata tggactacaa cacgacgatg atgacgatta cgatgatgag 300  
gacgatgatg acttgctcca gccccgatt aagaggatga agtgaagccc ttcgactcgg 360  
ctgctttagt caccatgcga tcagatgtgc ct 392

<210> 7396  
<211> 341  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-G9  
<400> 7396

aggcatccaa gttaggtata ataaaaacta tcataggaag tgaattggat gctatgatca 60  
at ttgatact tgataattgt tttgagatat ggaggtagtg atattaaagt catgctagtt 120  
gggtgattat gaattgaaag aatgcttgcg ttgaagttag catgtcccat agcatgcacg 180  
tatggttaaa gttgtgtaac aaatttgaaa catgaaatgt acctggcttg tgcacctta 240  
tcagtggctg tcggggacta acgattgtct tttcgtacca agattttcct ctaggagcat 300  
gctcgtagta cttgactttt gatgacatct aaacttctgt a 341

<210> 7397  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-023-Q1-E1-H6  
<400> 7397

gggtccacgg ggatgaggaa gacgactcgc tacaagtaga gagcacatca gtgggcttat 60  
ccatgacacg tggacggtga gtgtaatgga aaggaaaaga ggggaagagg ggaatcaccg 120  
aaggtgatgg agatggagac ggggaagaca tcgatgataa aggtggagac gaggaaggca 180  
tctgtgatga aggtggagaa ttggtgttgg tgtcacccca gaagctcaaa gattatttga 240

tgcattgtcg aagacgcttc cagttcattg ggacaagacc gacattgttg taatgaagga 300  
 ggttcgtgta tgcagtcctt acctgcctga aaatgtcagc ggcggaacat cagctgctaa 360  
 tgaacgggtt aagaaagtgc tggactttga gaggaaaaga caacatgtgc gtgtacctgg 420  
 ccaattctaa ctgttctgac ttgacaattt tcacctcaac tcct 464

<210> 7398  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-H7  
 <400> 7398

ggtccacggg gcaagatgaa aataattttt gaaggggtatc ccattgttta tttgttggtg 60  
 gctcttggtg gaaataccta ttgttggtga aattcaaacy atgtaaccta ttcttgtaat 120  
 gtaaccaaca tgcactcaat ctctataggt gcaatcaaaa caatgaagca aaaaaacaga 180  
 ggaaaaatag agcctatttc tctaggcctc tttaattctt gtgggccttc gacaatcaac 240  
 gcaatgcat ggcccaacta gagcttggtt tcattttggg cccaataact acattttttt 300  
 ctcttgact tgggtgtgtc tgacgaaact gaaagtgtca aaaactaaca cctatagaga 360  
 ttcagagacg aagatagaga catagttaa gcaacacaga gagcacatga tccacaaatt 420  
 gagcaacaca aagagcacat gattcactaa cc 452

<210> 7399  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-H8  
 <400> 7399

cacggacatg gacagacca acggcaccta cgtcaacgag aggaagctgg taccgggatt 60  
 cccggctgcc gtccaacccg ggagcctcct catcttcggt gacatccact tggcaatgtt 120  
 tcgggtgagg aagacaatcg tcgatgtggc agccgatgcc accaaagatg accagcagga 180  
 agctgagact gtgctggcaa gtgcagttca agaaacaagc tagtctacct tacctttcaa 240  
 aataagagtg caaaatagtg catcatggta atatgcagtc cccgtctcag gatcaacgaa 300

atatgtagct aggcagaaat agcatgtacg agtaaagagt aacttgcaac atgtcatgct 360  
 caaggaacag gtcattcaaa caaacacacg ctaaatttca cgc 403

<210> 7400  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-023-Q1-E1-H9  
 <400> 7400

cggtccgaga ttaccggggc cacgacgaca agatgatgca tgggtggtgtc cggcgctgcg 60  
 acggcgctcgt ccacgacaag gaggtcttcg ccgggtgtgat gccgcgcgaa cagggtggttg 120  
 cggtgtgatg ccgctaggag gagatggcag tgcgacgctg ccatgacgac cgtgcgatgc 180  
 cgacaagacg gtgatgagat gccgctgaga agatcgatgt acagcgggtg aggccatcat 240  
 gaggatcgat gtgaagctag ccgcggaggt gttctgggtg gtgtgacgcc atccccaaga 300  
 tgagggtgttg cgacgacgac ggcaagacgt acgtgaccag tgggtgtgat ctgctgaaga 360  
 acgttcaagt ggagattgat gatgcacat ggtgaagctg cagcgtgagg caagggtggtg 420  
 tgatcttgcc gctgcaaagt cttggcaaga tgttgcggtg ga 462

<210> 7401  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-A11  
 <400> 7401

tccccggggc acggggggcga gaaacgagtg aaatcgacgg gttgtgctag ttgagtaatt 60  
 gtgaatttga gaaatgcttg tgttgaagtt tgcaagtccc gtagcatgca cgtatgggta 120  
 aagtttgtga acaaattaga aacaagaagt gtacctggct tgtgcaccct tatgagtggc 180  
 ggtcggggac gagcgatggt cttttcctac caatctatcc cctaagagca tgcgtgtagt 240  
 acttgatttt tgatgacttc taattttttg caataagtat atgagttctt ttgactaatg 300  
 ttgagtcctat ggattatacg cactctcatc ttttcgcctt tgctagcctc ttcgggtaccg 360  
 tgcattgccc tttctcacct tgagagttgg tgcaaacttc gtcggtgcat ccaaaccg 420

tgatacgata cgctctacca cacat

445

<210> 7402

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-A12

<400> 7402

ttcgcgggtc cacggggagg ttgagaagct gattggcagg atagtgaagt ggctgaagcc 60  
cgggtgggcat attttcatca gggagtcctg cttccaccag tctggggatt ccaagaggaa 120  
agtgaacccg acgcactacc gggagccaag gttttacacc aagggtgttta aggaatgccca 180  
ctcctatgac caagatggga attcctttga gctttctctg gtaactccca agtgcattgg 240  
agcttatgtg aagagcaaga agaaccagaa ccagatatgt tggctatggg agaagggtcaa 300  
gtgcacagaa gacaaaggct ttcagagatt cctggacaac gtgcagtaca aatccactgg 360  
aatcctgcgt tatgagcgcg tgtttgggga gggttatgtc agcaccgggtg gattcgagac 420  
cacaaaagaa tttgtggaca agctggatct gaaagc 456

<210> 7403

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-A2

<400> 7403

gggccacggg cttataagta tggttatggc ctactagatt gatctttctt gcaatgggag 60  
aaatgcttac ctttgggttc aatcttgctg tgctcgatcc cagtgacaga aagggaaaca 120  
acacgtattg tattgttgcc attgaggata aaaagatggg gtttatatca tattgcacga 180  
gtttatccct ctacatcatg tcatcttgct taaggcgtta ctctgttctt atgaacttaa 240  
tactctagat gcatgctgga tagcggtcga tgtgtggagt aatagtagta gatgcaggca 300  
ggagtcggtc tacttgtggt gaagtttgtg attcc 335

<210> 7404

<211> 309

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-A4

<400> 7404

gggatactcg agatggcggc aagctttgca caggccgctc cgctgaggca gtacaaccaa 60  
 taaaccttct ccccaaaggg ggtaaaaagg aactttctct tgaacccttt gtaaacccta 120  
 aggaacaaat tcaaaacggt ttacttcaac cttgcggcct gacgctgcaa gatcacttgc 180  
 gccttggtac aaacaaaacc ggaataacac acgccctctt tcttctcatg tataccgtag 240  
 ttacaacag gcattanaag aggaaatgag ttgtttctt ctggaatact tcgaaatttc 300  
 aactaaata 309

<210> 7405  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-A5

<400> 7405

ggccacggca ctgctcatca ctttcacctt agttgctcga tactactggg ttaccatcga 60  
 gtgccgaggg ttacacctct tcagcacttc gaatgttaac gttgtcatgt atctattcgg 120  
 tcgtgggtcat cgaggggtgat ttctctctta accacttccc aagtctcaga aagtaacga 180  
 tgctatcttt gtcgtcatcg accaattctc gaagggtgct cactttctgc cagtcaagga 240  
 gactatcact gctagtcaat tagcacactt gtatatctcc agaattgtgt cactccacgg 300  
 tattccgaag gagatcagtt cagaccgtgg aagtatttcc actccgaagt tctgggatag 360  
 tttccaagag gcaatgggaa ctcatattac ctggagcact gcttatcatc cccaatccca 420  
 agc 423

<210> 7406  
 <211> 142  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-A6

<400> 7406

gggtagacat gatcgaatta gttcctgtac cacaatatga acatacaaaa caattggata 60  
gtttgtatca aatttttgtg gcacttgcta ccttgatttg aatggagaca acggtgtagc 120  
acatatccaa agcagcacac aa 142

<210> 7407

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-A7

<400> 7407

cgattaatat taaaccctcc tctgcggtgc ctctttttct cccgtggatg acaatggcga 60  
cggtgcgcgc taagctcctg acggatggct ctctctcaag cacgtgactg gcagcaacta 120  
tggtggtgcg agagcctccc cagcgcgctc accaccctcg agatcgaga ctctggtagc 180  
gcacacaacag caaccgcaca gagccgcagt ggacatcacg gtctgtgcgc cagcctagg 240  
gtccgcagcg acagggtcgg cggcaaatct aatccatata cactggtttc agcagtaagc 300  
tgacgtctca tacatcaccg cgttcattct ccatcttgct ccttgacaaa ttagattggt 360  
ctaccaattt ttttttggtg attgtggacg accaagataa ggataagaga aagtaatcat 420  
aaa 423

<210> 7408

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-A8

<400> 7408

gggccacggg gataattcca cggatgaaga cgaggacact gacagctgct cgacgcctct 60  
gccccgcgcg ccgccgcccg gtatggagtg ggagtacacg gacccaatca ctatgcgccc 120  
cttggttttt ctccatctt cgttggttga tcgggacgat aaacaagtgg tctcacaagt 180  
cagcatggat gacgattggg tggaaacgaa catagaattt gatggacatg atgaaagcgt 240  
ctctggcaat gctgatggca tacttaggcg tgtggaattg catccagcat agagtacggt 300

tatgggtgat gtaaactcat caatgatgag cagctgggta acaaaggact cgaactcttc 360  
 ggtgatggcc tgggcgactg acaagtcact ggtagaaata gccaaaggaga ttgatgagta 420  
 catcgtgaaa gcagccgcaa gtgggactga tgttg 455

<210> 7409  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-B1  
 <400> 7409

acagagcaaa atcaaacatc tcatcgaaag acgggacacc tccgcctcta tcaagcggta 60  
 tcagatttcc aggttgctcg gtgagatttt acagtttttc gtagtttaga tccagtcctgt 120  
 tcttcatatc tacagtccac gaaaaagcca caaaaaaatt tagggtagt tcatcatatc 180  
 cgaaccaatc tgagcctttg cataatcttt ttaaggtttt tgctttgttg aatttgcggg 240  
 tgcacgtcg gtctagtgtc tgggtcttaga gtctagtctt ttagagtctc gagttctggg 300  
 cataagttgt cagcgcgcg ccacaccatc atcatcgccc ctgccatcta ccaccaccgc 360  
 tcatccgcca ccgtccgaa ttcgtatcca tataccacca ccaatccgtg tccatat 417

<210> 7410  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-B10  
 <400> 7410

ccatagctat ctaggtagct cttatcacag tagtatcata tgtgggcttt ctttagttgc 60  
 atctgctctg agtgctgcgg catcatctgg agaaaggggtg agtaccacta ttgtaggcct 120  
 tggggccggg agtttaccaa tgtttcttca tggatgcctc cctcatctta atattgaggt 180  
 ggttgagttg gaccccatga tggaggaggt agcaacgaaa tattttggct tttcaatgga 240  
 tgagcaattg aaggtgcatt tgggggatgg aatcaaattc attgaagaaa atgcccattc 300  
 tgaaccaaatt ggcaaagaca gtgacgcagt tagaattctt attgttgatg ttgaatcatc 360  
 tgatctaagt tctgggttgt cttgcccccc agcaaacttt gtcgaagatg ctttccctat 420

gtcagcaaaa aagttccttt ca

442

<210> 7411  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-B12  
  
<400> 7411

cggaaccac agcacgttac atgctttgca tctgttgga cggcagtgtg ttgtgttgca 60  
agatgctgag ggattgccng agcagttcnt atgcagggaa aggcattggct atgcgagatg 120  
tcccgatgac acaggccaac atatgaagca gagcgccaaa gggtcactga gtgtggggga 180  
tacattgaag atggctacct caacggagta ttgtcgggta ctctgtctct aggggattgg 240  
gacatgaaaa tgcctcaagg ctgcagtc cctctgatcg ccgagccaga gttccagcag 300  
accgtcctca cggaggatga cgagttcctc atcataggct gcgacgggat atgggacgct 360  
atgaccagcc agcaggcggg gaccctggc cggaaggggc tccgacggca cgatgacccc 420  
gagaggtgcg cgaggagct cgccatgg 448

<210> 7412  
<211> 333  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-B2  
  
<400> 7412

cgacggcacg gacagcctct acgactgcga ggaggccctg acggacgaca ccaacggcgc 60  
cggcgctaaa acctccgcgc aaaaaatcgc cttcggcaac ctggtccgct tcatctccaa 120  
aaaggtgtgg gccgcctgga cttgaccggc atccccgcgc gccgcggcta taacttctcg 180  
taaattaggg agaccagca atggagacta ccaaagggt caggtcaggc caggtcaggc 240  
ccgtgaaacc agtagtagta gtagtaccag ttggttttgt ccagcaagc aagcaagcaa 300  
gcaagagcat ccgtctctc tatgccccct ttg 333

<210> 7413  
<211> 211



<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-B4

<400> 7413

aattttgctg gacatgtacc gaaagttcac caacggtgat ctatggcatc gacactagtt 60  
cactttctgat gcggtgaaga ttccttctaa gctgcacgat caagcttgct acactaggat 120  
aactattgat aatctgactg atcatccctt gttcaagaaa gggttttaaa ctgtagtaat 180  
tccgttaaga tcaacaccac atgcttcaaa g 211

<210> 7414  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-B5

<400> 7414

actaccgaag tataatggcc tgtctggatg gctatatgaa cattgtgatg gagcaaaccg 60  
aagagtacgt gaacggccaa ctgaagaaca tgtatggtga cgccttcata tgaggcaaca 120  
tcgtcctata catcagcacg tcgaagcggc ccctcaccga ctgagcatac gccgagtggg 180  
gcattcacat catcatgatg taatttcaag gtcgttaacc cgatgattgg ttgtgatctg 240  
actggtgcta ccttttgcaa tcttgtacgt gttgtctgct gtagtgccctg ctgacagaga 300  
cttatctgga atcatttcga tttgatgtta tctgcgtttt tagcttggag atgtttgtgg 360  
ctaagattct gcgatcagga tagatagtag atttgtgtgt ccatagtcct gtgctgcata 420  
taacagacat tacgtgtctt aaggacacc c 451

<210> 7415  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-B6

<400> 7415

ggaagaatgg aatcgctctc cggaggatca gcggaatgtg gatgatgtga cgctggctgc 60  
ccgtatctac tgagggtcaag tagtgacatg tctcgatact ccggaacgag ttgcaccatc 120

gtcctcgct gcatcactgc taagccggct ctcatcctgt gatcatatgc gaattacacc 180  
gtccacatca tcatgatgta atttcaccgt cgtaacgcc atgactggat gatatctgac 240  
tgcgttcacc cttcttgcaa tcatgtacct cttgtctgct gtagtgctg ctgacatcga 300  
cgtacctcga atcacttcca cttgatgtgg acatcctttt tatcttggag atgtttgtcg 360  
cccagattct gccattatga cagacagga 389

<210> 7416  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-B7

<400> 7416

cggggaaaagc caagagttac tgagcaggca tggatggatg gatgtttgga gcgcgagcat 60  
caactgtggt tgtgcataat tatggttatg tcagacgtgt taattgtcgc aatttccaat 120  
tgggtgtact atatatatgt ttgccaaata atgtgtgcac cgtgtgcaac tatggaacag 180  
cgaagtggta atcattttgt gagctttgga acagtgaagt gacacatatt tgtcctaaaa 240  
aaaaaaaaaca aaaaaaaaaa taaaaaagaa taatcaacaa aaaaacaaac aaaaaatcaa 300  
aaaaaatgga accacttcta gatgatcgac ctcgacgtac acatctagga aacttcaagg 360  
ctctccaatt ctgccatcaa gacacattgc ggacccc 397

<210> 7417  
<211> 424  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-B8

<400> 7417

cgggaggaaa aaaaaagaga gggagacgaa gcgagtggac ttcagccaaa gaggcgcctc 60  
gttcggattc agtgtccact acaaaaaaac gtttcagctc ccgcgtgacc ttctgtatac 120  
ccatcgtgcg tggcaaaaat ttatacatcg gcttggctca ttcccgaac ccgcgtcgcg 180  
tcgcgccgtg acgaggcgag gcgtggcgtg gtgtggcgag gcgggcggcg gaggaggagt 240  
gcgcgtggat gtccctcttg ttctcatcct cacacatgtg gggaaagaac ctcccttata 300

aagagatcca actccctcta aacaagcaat gtgggactaa acttttagttc cacctcttgc 360  
 cttgtacgaa tgggttgtgt gggcctcagg atttattagg aatttttgaa actgctattg 420  
 ggct 424

<210> 7418  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-C1  
 <400> 7418

gttccaattt caaaaggagc atttgctcat attgagaacc ctctgccaaa tcccgctcca 60  
 aaatttacct ccttggcagc caaaccagct accatcattc tctcaggatt cggaggcttt 120  
 ttcagcttca gtgatttctc aaacaagccc attaagcaga actccaacaa gaagaatccc 180  
 aacaacctcc cccagaataa aggccagtct aataacaatc atgaagcgat gagcaatgac 240  
 tggctggaaa atgggtcaatg ccctcttgca aagtcata tagcaattgg tggagtcgtg 300  
 cctcttgctg caaaactgct ggcgccccca gctggtatga aactgacgtg ccctcctgca 360  
 attgttgctg cccgtgcagc aatatcccg cgcggtttg caaaagggtc tcgccctcag 420  
 cccctaccga c 431

<210> 7419  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-C11  
 <400> 7419

gggtccacgg gcatctttac atgacagaaa taaggcaacc atcaaacaaa ccttcttata 60  
 atctggaaga tcatcaatgt gtatgaaata gtcttcaaca ggcgatgcaa cgaccaaata 120  
 actggaatga aaaagggtga agaatgccc accggcattt gtttcaggca gggagaaaaa 180  
 caatgacaga gtatatacgt tcgtcaaaaat gaaatagggg aagtatattt acttacagat 240  
 tgttcagctc aaacatgccca attatatggc catacacctc aagggaacaa actagagcaa 300  
 gttaaggtaa ctcgaatgac aacgataact actcattgta tgaaagtttg aaacaagtct 360

ggtaactgcc aaaaaaggat acatggtgca cactcagcat cgaagatcgc atccttgaga 420  
agcttttagtg actgcaaata cagaagccat gat 453

<210> 7420  
<211> 307  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-C2  
  
<400> 7420

gggattttta ttagccacat gatatgtggt ctgcttggag cgtaatttta ttttgttagt 60  
atttgcttga tgttatatat aataatgctt tgcattctta ttttttcaat caaatgtcaa 120  
ggatagcctt taccatgctt attttgcaag tatacatggt gctgtttcaa aacagaaagt 180  
ttaccgctgt tgtaaaaatt tcttagaaaa gtcagagagt gatataatgt tgaatctttt 240  
tgaataatga gctctgataa atcttttata gcatagtatt tttcttataa tttttggagt 300  
taaggaa 307

<210> 7421  
<211> 304  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-C3  
  
<400> 7421

aatatgatat gagcttcact tatatcgctt gagctaaata tttttgctct agtgcttcac 60  
ttatatcttt tataggcggg ggattaattt tgaagaacct gttcatctat catagttcac 120  
ctatatcatt ttgagactcc tttagaacat tatgctattt gctatcggtt taaattcctc 180  
ctacaatgat gatcccccaa gttgggtata attgatacta tcataagacg ttaattggat 240  
gttaccatca acctgatact tgatcattgt tttgatataa ggatgtattg atattaggat 300  
cttg 304

<210> 7422  
<211> 146  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-C4

<400> 7422

cgtgacgaag cacagtgcga ttggcgtcag tgcgccagat cgggtccgtg gcggtgcaac 60  
cggcttcaat cccccgggtc gggtccttgg cctgggtcac acccttacca acaacattga 120  
cgggcgctcc aaaaactccg gcaacg 146

<210> 7423

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-C5

<400> 7423

cgggcatcat aaagaactta gtttgctttt gggttatgaa gaaatgaaac gtcaaactaa 60  
gcatattcca gcatataacc ttgagaaatt cctcgatatt gatctagaag aaatttatat 120  
gtattgtgcg gtgaattgca ttgaaaactt atattgccaa ttacataaag aagaggaaac 180  
aaatagaagt tgaagagaat actaacgaaa gggaagagac ttcccaatat tctcctatta 240  
tttcttatga tgaatcaggt aacgaggagg agccttatat tcaaccaatc tcattaataa 300  
ggagctccaa aaagaggatt gaaccacac atgatgtgaa gaagaaaaag aaaagatgga 360  
gaaggaaagg tagaaaggta tctctcccaa atgatgttgc tcctattact cattgtgatg 420  
atgat 425

<210> 7424

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-C6

<400> 7424

cgggcatatt gggagtcgtt caatcagtga aattccaaag atcccgaagc cctcttccat 60  
gtgtttatct gaaactgaca atgcaaata cactaaagat aagaccagc gactccatat 120  
gccagctgga gcgttggttg acattagtaa cttcatgggc acacattctg gaaatattga 180  
ccatgctgtt aatgagaaga gaagaattga gggàagaaac actgcatctt cctttaaacg 240

ccccgctct tccagataaa tcctttgatt tgcacccctg ttagcaggct gtaaactcct 300  
 tgatgccatg cttttgctat gcccttgctg tcaatgtgag tttgacactg catgtgtttt 360  
 gcatgctggc gacgtttatt tatgcagcag caaggcagtg gatctttttt ttcagacgga 420  
 tctaaaatga agatgattgt ctt 443

<210> 7425  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-C7  
 <400> 7425

gggcacacgg gaaatactag ggaaaccgtc aatgatgaat tcatcaatcg cttatcattg 60  
 tataccacga cgtgtttgcc cagagcacac atggcgtatt agcatcaacc atctgtgtta 120  
 ttatcggctc tcgcagacat ttctaattac agacctagtt gccgtgtacc acacacatct 180  
 tgttaagttg aaccgtttct gttctcttgg gtcaacgcaa acagtccatc tgagtgaact 240  
 gtatgccgta tatcgcacac acctttgatc tggctgagcg tttctattgt gttgcctaag 300  
 aaaaaacagt tcagttagtg aactatatgc catatatcgc agacaccttc atctggctgc 360  
 acatttctgt tgtcctacct catcgcaaat aggtcactgg agtgaaccgt atgccaggta 420  
 tcgcacacgc aactctatct gaaatgtggt tg 452

<210> 7426  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-C8  
 <400> 7426

cgggacaagt atagtgaagg ccgggttcgc cggcgacgac gcgccccggg cgggtgttccc 60  
 cagcatcgtg gggcggccgc ggcacacggg ggtcatggtg ggcattggggc agaaggacgc 120  
 gtacgtgggc gacgaggcgc agtccaagcg tggatatctc accctcaagt accccatcga 180  
 gcacggcatc gtctccaact gggacgacat ggaaaagatc tggcatcaca ctttctacaa 240  
 cgagctccgc gtggcccccg aggagcatcc cgtctgtctc accgaggcgc cctcaaccc 300

caaggccaac cgtgagaaga tgacccagat catgttcgag accttcaaca cccccgcat 360  
gtacgtcgcc atccaggccg tgctctccct ctacgcctcc gggcgatata ccggtatcgt 420  
gctcgactcc 430

<210> 7427  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-C9  
  
<400> 7427

ttcgcggggc cacggggaga gcaaacagga gtgtggtcta cagtcacatg tgagagcacc 60  
aatgaatagg ggaggctttg cagcacgcat gatcttgcca gttctatcgg tggctcttct 120  
cgctcttgct agcgttgggg tctatggatg ggcataatag ctctctttat ggtgggattt 180  
aatgtgtcac attttcccca catcggtgtg gatcattgta catactgtgt cttgctgcct 240  
gcgtttaaga ctgttgtaag acagcgaagt gtttgttccc cttcgggcgg gggactgtga 300  
aatgaagaag tgaggtaaca aatgagaagc gggatgaagc aaggagcaac tgttgctgta 360  
gatgcctgtg acttagtaca tgctagtttt tgttttcctg tcatcacaga tgttggaac 420  
caggtttagt ccatcca 437

<210> 7428  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-D10  
  
<400> 7428

cggggctaag tcaacacacg atgaaggctc gaactgtagt aagtacgtac gtaggtgtag 60  
cacctcatct tgtactgcac accatggcga taatgaagaa gaacacgagc tccctgagct 120  
tcgtcgtggc cgctctcatc gtggatcatg ctgccaccct tctcctctcc tcgtgcgacg 180  
cccgcaaaga gaaggataag cccaccgctt cccccgtgtc ggggaagtgc ttctcgaggt 240  
ttttcccaca ctgcaccgat cagcgatgca agaagttctg cgtcgagcca ctccccggag 300  
ccgtctgcat cgacaaaatc cactgttget gccctattgc ttagttataa gcgtcgttga 360

agcgatcggg ctaagaaata gtactgggta aagatggcaa catgcaatat ttgtacactt 420  
cgacatatat accacctctg ttt 443

<210> 7429  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-024-Q1-E1-D11  
  
<400> 7429

taccgatcca acattcccgg gtccacggga gataaagtat gtaaattattg atagatcgaa 60  
tgccaaataa aataaattgc atcaaggat ttttgggttt ttggtttaat agatctgaat 120  
aaaaatgcaa agaaaaagta gatcgcaagg caaatatatg tgaaagaaga cccggggggcc 180  
gtaggtttca ctggtggctt ctctcgagaa aaatagtaaa tagtgggtaa acaaattact 240  
attgggcaat tgatagaacc tcaaataatt atgacgatat ccaggcaatg atcattacat 300  
aggcatcacg tccaagatta gtagaccgac tcctccgtgc atctactact attactccac 360  
acatcgagac gtatcagcat cccaagctt aattcctact tgccctcgag taggtaagtg 420  
ataaaaacag aaattttgat gtggagtgat gttc 454

<210> 7430  
<211> 309  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-D2  
  
<400> 7430

gggcaacgtg cacaccatct tcgaggagga aggcggggcg cgggacgcca tcatgatcct 60  
gacggtgaag cgcgacaaca tctgcagctt catctcgag accaaccg ggcacgtgcg 120  
gtcgtgggag accaaggaca gccagctgac gatggtggcg gacgacctga agccgcgggc 180  
ggtgctgacg tgcccggaga agaagttgat ccagcangtg gtgttcgcca gctacgggaa 240  
cccgtgggg atctgcggca actacacngt gggcaaagtc cacacgcca aggccaagga 300  
gattgtgga 309



<210> 7431  
 <211> 327  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-D4

<400> 7431

tatatcaaac aaaaagaagc acgaactgta gtaagtacgt acgtagggtgt gacacctcac 60  
 cttgtacgga aaacaatggg aatattgaag aagaccacaa gttccctgag cttcttcttg 120  
 gcggccttca tcgtgggtcat ggttgcaacc cttctcttct cttcttgcaa cccccgcaag 180  
 gaaaaggata agcccacggc ttcccccttg tcgggaaaat gcttctcgag gtttttccca 240  
 aactgcacca agcagcaatg cacgaagttc tgcgtccagc actccccggg agccgtctgc 300  
 atcgacaaaa ccaactgttgc tgcccta 327

<210> 7432  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-D6

<400> 7432

gtttattcct gtttagtaat aaataattta tctatcctct gttattattg agtttttatg 60  
 ttttaattag tgtttggtgcc aagtagaacc gttgggaaga cttggggaaa gtcttggtga 120  
 tcatgctgta aaaaactgaa acttttagcgc tcatgagatt tcctgccatt ttttattgga 180  
 gagtgtctatt tagttaattc ttttgcagat gattaatata taaattcctc acgtccagaa 240  
 atttatttta gaatttttga ggtaccagaa gtttgcgtta gttacagatt actacagact 300  
 gttctgtttt tgacaaaattc tgtttttcat gtgttggtta cttattttga tgaatctttg 360  
 gctagtaaaa gagtttataa accatagaga agttggaata cattagggtt aacac 415

<210> 7433  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-024-Q1-E1-D7

<400> 7433

ggggtgccat aaatgaatta aaatttgata gaatactcta tgtgcttcac ttatatcttt 60  
tgagctaagt agttttgctc tatgtgcttc acttatatct tttgagcgtt ataattttgc 120  
tctatgtgct tcacttagat cttttcgtgc acgggtggggtg atttgtttta aataaactat 180  
tgatctctca tgcttcactt aaattatttt gagagtctta atagcatggt aatttgctta 240  
ataatgacat gcttggtatt caagatttgt gaaactttct tttgagtgtg ttgaatacta 300  
agaaaatttg gatgcttgat aattgttttg agatatggag gtaatgatat caaagtcatg 360  
ctagtagagt aattgtgaat ttgagaagtg cttgagttaa agtttgcaag tcncgtaaca 420  
tgcatgtatg gtaaacgtta tgcaacanat ttgaacatga g 461

<210> 7434

<211> 336

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-D8

<400> 7434

gggataggaa ggatgcttaa tgttgtcgcc gtctgctagg gattactggc tcagctcttc 60  
acttctgact catcatccgc gctgtacggc atcctacccc ttcttcttct cctccgtctc 120  
ctctccctcc gacacataca tcattaccct taaggtagaa tttacttact ccaaatgcat 180  
tgctctatct gcatctacac catgaatcta tgacgtgttt caaagacgaa atgagttgcg 240  
ggagtattac gaacatttgt atacagcatt aatctacgat ctggttcact gagtagatta 300  
ctgggggaaat ttgtatacca taaatctatg atgtga 336

<210> 7435

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-D9

<400> 7435

cggggcaatg cgaaagcgag aggaggggtc gaactgtgtt atgtacctgc gtcgggtgtat 60  
caccgcaact tgttactgca cacacgggta ttgtgaagat gaccacgatc tccatgagca 120

tegacatagt cgcctcacc ttggtcacgg gtgccagtct gctcttctcc tegtgccatc 180  
 cgtcatcgga tatagatacg cacgtcgatt ccccatgtc tgagaaatcc ctcacgaggt 240  
 ttttcacaca tttcacgcac catttataca ttacctaccg catccagcca ctcacctgtg 300  
 ccatctgcat ctacgtctac cactgttgct gcgctactgc gtacttatac ccctctttga 360  
 gccaatcggg ctatcatcaa gtactgggta aagatggcaa cc 402

<210> 7436  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-E1

<400> 7436  
 gagctgaaca aagtgtggt ggccatgaac gagcgcaagc acatcgaccc gctgcccag 60  
 tgctcaagaa tgaaacgga acccctccgc tctgtgagc agtcgacgag agaaagtaac 120  
 accaaaggaa aagaaaacac gtacacacaa agtgaatata aaagtgttca agactgtgaa 180  
 ccgggaggtt cctggtatat ctacgttcat tgtacttagt taagttgatg ttactgttgt 240  
 tttttctcgc tgccgccatg ccatgagcan gccaggcang cagcttctca aacttgtgtt 300  
 gttgtaactt gtatgatggg agcttaagta cattactttg ttcc 344

<210> 7437  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-E11

<400> 7437  
 acgggatgca ccgaaaggca tcccctcttt cgtcttcgtt catcggtaac ttacttgga 60  
 gctatatttt tattcaccac atgatatgtg ttttgcttgg agcgtcatgt cattttattt 120  
 tcccctgctt gctgtttgaa taaaatacca agatctgaaa ttcttaaagtg ttagagagtc 180  
 ttcatatggt tgcataatta ttcgactact cattgatctt cacttatatc ttccggagta 240  
 gtgtgttatt gctctagtgc ttcacttata tatttttagag catggtggta gttttatttt 300

gaacaaatag atgaactctc atgattcact tagattatctt tgagaatctt aaatagcatg 360  
gtaatttgct taaaatccta atatgctagg tattcaagaa taataaaaatt ctcctatgag 420  
tgtgttg 427

<210> 7438  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-024-Q1-E1-E12  
<400> 7438

ttcgcgggtc cacgggccgc taaacataga caaatattga gggaaatgga gcttgagag 60  
gagaaagctt aagtagtggt gctcgggcat tccatcgaac acatcatgag cataggaggt 120  
gagctagagc accacaaagc cctccctcgc cgggccagaa aaaacagagt agtgtggagt 180  
gctctgcttg tcggcgaggg ggtatatata ggcacacat tgggtccggt tcgtggttg 240  
aaccgggact aaaggtcacc ctttggttct ggtcaagcc accaaccgga accaatggtg 300  
gtgggccagg agcgaggcac attggtcccg gttcgagcct cgaaccggga ccaaagatgc 360  
cagatgaacc gagaccagtg cccacgatg gcccgccag cccctggcc tcacgaaccg 420  
ggacctatgg ccccatgggt cccggttctt ggctg 455

<210> 7439  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-E2  
<400> 7439

tctcacaact gaaccgggaa aggaaattga cccagacggc atgaaactcg cgactaaata 60  
aatatgtaga gactgatttc tgcaggactc atcttcttta gacctgaata aatatttctc 120  
acaaaccgaa attattttac aaagatctgt gtaacatgaa gctagcaacc caaatgttgt 180  
gtggaagtct gaagatgtgg taattcctgc atccgtaaag taatcttctg aagatgtggt 240  
aattcctggt aaaccttgct ccaggccaaa agagtgggtg ttgctctcca agaaaaagaa 300  
ggcttattga ttgcttgctt aagtgtttga aagatatcaa aacaatcgta tacaagatta 360

atgccagggc ataattggga gtacttagca aactggcagc tgaaacagag gtgttcctt 420  
gcntctactg tccttagcaa catgg 445

<210> 7440  
<211> 226  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-024-Q1-E1-E3

<400> 7440

gcaagagagc ggaaagcgtc anggcagccg gcgagaaagg ggccggcctt ggtaaccaa 60  
aaccgccgca acctccaagg aacctgccaa aaaggcccg cccttgagaa ccaaaacccc 120  
gaaaaccttc ttggaacctg ccaaaaaccg ggaaaatggt aaaaaggggt tgccccctt 180  
gaaaaccaca accggaaaaa aacccaaaaa actcgttggg cccaag 226

<210> 7441  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-E4

<400> 7441

aacgacgaaa aaatgaggct atggtggtta tcaatgcaat ggtaaggatt agaaaaagat 60  
ttcatcaagg ttacggccaa ggtatccgtt tgaaagcatg gacggttggt ggcgattaac 120  
agtccttggc gaagatgagg agtggtagtg ttgatatagc accgtacctata tatagccgaa 180  
acacaatagg acacgaaacc acaactcaaa ttctcaaaga caaaaacggg ccaaaattga 240  
cggggatggt agcgggtgaag tgaagggtgt tcttgacagaa atcgatggtg gtatcggagt 300  
gtgtatgcgg tgggtggagt ggaattgaag tgcgtatgcc ggagtgggtg ccgtggccga 360  
aaattttcgg gcgaaaaaaa agaagccaag gaagcccccc ccccaaaaaa aaagaggcca 420  
t 421

<210> 7442  
<211> 409  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-E7

<400>       7442

gggcgtactc tatatatatta ctaggcgcca tgtcggacaa cgacttgtcg ggaaattgct   60

tcctgtatca ctgtatgtaa gtcttttagca aacacttaca catttgcggtg ttctacgcac 120

atcgtctaga atttcagtga ctttgcgcat catgacaaaa tttcagcagt tcacttgctg 180

gaattgccat tgtcgcaact tctgagagct cgcgcatggg gtgctttcca tctgacagcc 240

ttgtagctga attcaatcca cattcattgt ttatgatatc aagttgtaat tgttgagttg 300

taagaaaaaa gataagtgtg atgatcatca ttaatagaga cattgtcaca atgaggaaaa 360

gatgatggag actaggagtc acccacaagt cgggacgaga ctccagaaa           409

<210>       7443

<211>       279

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-E8

<400>       7443

cgggtgtaac ttaaagtgtt tcctctgtgc ctggtcgtac atagacttgt ctgggacatt   60

gcttcgtgta ccactgtaag tgtgtcgtga cgtacacatt actagagatg agtgatacac 120

cacaaacgtc tatagattca gtgacattgc gcatcatgac aaaatttcag cagttcaatt 180

gaggggaattg cgattgtagc aacttctgag agctcgcgca tgggggtgctg tccatctgac 240

agccttatga ctgaattcaa tccaaagaca ttttttatg                   279

<210>       7444

<211>       434

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-E9

<400>       7444

cgggcctagc taacagtggg agtagtaggg gcgatgaggc ctcaatggca acacagccgg   60

ccactggagg caggagcagg cattctcccc ggcgctgggt tgggagggtg gtgcatgaag 120

ctgctgctac cctgtctctc tcccgtgtgt cattgaaaca tctttctttc tgtgtgaatc 300  
 tgcaagactt ggccccttaa aaaaaaaaaa aaaaaaaaaa aaaaaaatta actaaaaaaaa 360  
 aaaaaacaac aaaaaaaaaa agcaaaaagt aataaaa 397

<210> 7447  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-F11  
 <400> 7447

taccgatcct acnattccgg gtgcacgggc gcacttctac ctttccacct ttgctagcct 60  
 cttcggtacc gtgcaatgcc ctttctcacc ttcagagttg gtgcaaactt cgccggtgca 120  
 tccaaacccc gtgatacgat acgctctatc acacataaac ctccttatat cttcctcaaa 180  
 acagccacca tatctaccca ttatggcatt tccatagcca ttccgagata tattgccatg 240  
 caactttcca ccattccgct catcattttc atgacatact ttacttttgt cacattgcca 300  
 ttgcatgata atgtagttga catcgtatct gtggcaaagc caccaagcat tatttttcgt 360  
 acatgtcact cttgattcat tgcaccatcc tggtacacca ccggaggcat tcatatagag 420  
 tcatatcttg ttctagtctc gagttgtaat ccttatg 457

<210> 7448  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-F12  
 <400> 7448

acgggcctta tgaaaactag aactggatac ttaataaaac acacccttcc aagtgccaga 60  
 tataa<sup>3</sup>ccgg tgatcgctct ctaacagggt gacgaggagg ggatcgccgg gtaggattat 120  
 gctatgtgat gctacttggg gaacttacca tctattctct tctacatgct gcaagatgga 180  
 ggtggcctga agcgtagtct tcgacaggat tagctatccc cctcttatto tagcattcta 240  
 cagttcagtc catcgatatg gccctttaca catataacca tgcatatgta gtgtagctcc 300

ttgcttgcca gtactttgga tgagtactca cggttgcttt tgtccctctt tcccccttc 360  
 tatacctggg tgtcgcaacc agatgctaga gtccaggagc tagagatccc gaggatgatt 420  
 ctacgtggag ttcggt 437

<210> 7449  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-F2  
 <400> 7449

gtccacgggc tegtgttcgt gtcacgtta gtcacaaag cacgggcaca cattacttaa 60  
 ccccatgtgtt ggaagagttg acatttttgg tatatatggc ccctgccctg ttggaacggg 120  
 tactgtctta atcagtgaca gtatattgtt agttaatacc cgagatgcag accttgggca 180  
 tgataacacc actacgtgtt gcaaattgca tctgagggtta cgtggctgga gtatcttgtt 240  
 gcgtcagatt cttttttattc ttcttcttct tctgaaaatg tacaaaatga atctgaacga 300  
 aggactatgc aaattatcgt gaaattttta tttttttgaa aaggggattg tcgtgaacgt 360  
 tgagaatttt aaaaattgaa tctgaatttt agtactttta cgagatgaaa tcgggtctga 420  
 aatgggagag cccgacagcg acgtactccc tccg 454

<210> 7450  
 <211> 218  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-024-Q1-E1-F4  
 <400> 7450

aatcaaaac ataatcacia cgcacgggcc aagttggcgc ctatgaaagt tgggcaaggc 60  
 caaagagatt cgtccccctt gcaccaagct gccagaccta acaagaacat gcaacctggc 120  
 aatggggacc tcccacaaga aggaatgaat gggaatttcc tgaaaaaagg gccctgggg 180  
 taaaatggct aacccacat aatccccaaa agggggccc 218

<210> 7451  
 <211> 408  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-F5

<400>       7451

gggttgatgt gagacctgta gcatcagtgt cccatagcac atgctgctg gaacagtttg   60

actgcagcat cagcaagtct cagctgcctt ttgtgcatcc tgggtgcctg attgtcaggt   120

gcatcaattg ataccagcac attccaactg tcattaggca tacattgtca tcgatagata   180

tatgcctttg aacttcatcg cagtacatct atgatcacta tggcgtaaaa caccaggagg   240

taccatgtca attcacacat ttgtccagca tatctcattg agcttgtcaa tctactaaga   300

tgatagcagt tcttacatct ttataaattc gacatcaatt actgtgatct ataattttac   360

agtgcattgt cacttatcac tatagtgtta cctattgcac acaacatg               408

<210>       7452

<211>       439

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-F6

<400>       7452

gggcacagtc aaacacgcgt cctacttgtc gccgtccaat ggtcggaac tcctccgagg   60

atgagtaggg catgggaggc ggcagggcat ggtgtgccaa ctggccggtc cgtatcccgt   120

gttctactct tcctcaccgg agaccgcacc ttcacttcac ggttcttgaa ccccgcccc   180

gtacatagag atgcagatg gaggacgttg gtcaccgccg tagaataggt ttaggatcgg   240

gtttctttta tttttctgtc ctataaaagt tcgaaatgta atgaaaatct ggcgtgtttg   300

cattaatctc ggctggtgta tatgaacttt cacaataata tacatattgt aggagtacta   360

gcaagatgcc cgtgcattgc acggaagatc aagatcttgt gggagaaaag gatgaacgag   420

ggaaaacctt atctgcaa   439

<210>       7453

<211>       449

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-024-Q1-E1-F7

<400> 7453

ggggaacatg aagccatgcg taagatgaaa aatgaattta tggatgaactg ggatggtctg 60  
agaacaaaag acaaagaacg tgtattagta cttgctgccca ctaataggcc gtttcatctt 120  
gatgaggctg ttattaggag gctcccaagg aggttgatgg tgaatttacc agacgcaacc 180  
aataggaaaa taattattag tgtaatacta gccaaagaag atttggcaga agatgtagat 240  
ctggaagcag tggccagctt gactgagggg tattcaggca gtgatctgaa gaatctgtgt 300  
attactgctg cacatcgccc cataagggaa ctccttgaaa aagagaagaa ggagagatcc 360  
ttagcagaag cagaaaacaa atcattgcct cctaagtatt ctagcagtga tgtccgtccc 420  
ctaaatatga gtgatctcaa acaggcaca 449

<210> 7454

<211> 274

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-F9

<400> 7454

cgggtagaca ccagaggggg ctatgggttac acagagtagg ttacagagaa aggaatcttc 60  
acatccgaat taccaagctt tccttccacg taaaggagag tcccattcgg atacgggatg 120  
aagtcttcta tcttgtatct tcatagtcca acagtctggc attcgcatat agtccggctg 180  
tccgaggacc ctcaatccag gactccctta gcaggcacta actagccact tcacaagccc 240  
aaattacctg ctgggaatgg ctttggcagg ccat 274

<210> 7455

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-G12

<400> 7455

acgggttcag ccaaggtatg cggatgtgga gccagctaag ttgtgcgggc gttgcgctga 60  
tttaggcgtg ggaggcggcg gagtggcggt ggagccggcc ggccagactc acaatcgatg 120  
gagaggggtg tgcggtcgag agcgggaggc tgtgacagtg gggcggtggc gaggtggtgc 180

cgtgcggccg gacgggatca tcctggtcga acaggctcgt gccccagggc tgctcaccgg 240  
 actccaattc ccaccgtctt caagctctag atcgagcttc gtctggaccc atctatttgt 300  
 gcgatactgc gtttcctctg gtggccatct gttccgctca gcgtttcttc tgaatttgag 360  
 aggagaaggc cttgaggagg ttcatgcaac catggactgt ttagatgaga ttagttgaga 420  
 gaaaaggaaa at 432

<210> 7456  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-G2

<400> 7456

gggacggtga agatgtacat ggacaacaaa tccacgatcg agctgagcag gaaccaattc 60  
 aacaagaaac aagttagcac aaccacaatc cgtttcaata caatcctcaa ttcaattaag 120  
 gaaggcttgt tgacaatgat tatgttagca acaattgaac aaacatctgg acaaaggccc 180  
 tgggggcgcg tcaaagttct cggaagatgc gactttaagc tcggcgatcat ggaagtatca 240  
 nacgggacac aggattaagg gggatgatntg ttgacctgtt aatcctggcg cccttgatgc 300  
 tagtttaagt agttgtttct ttgcttttca aaactctacc gcatgtgcac 350

<210> 7457  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-024-Q1-E1-G3

<400> 7457

tcgtcgtagt cncaggatct ggatttgggc aggttcctgg cacatgggac ttcagggtgca 60  
 cgattcttcc gcaggaggag aagattccgg caatcatctc ccgcttcacg gtgttccatg 120  
 agacgttcat ggcagagtac cgtgactaaa ctggtgttac atgtgtggga ttacatgcaa 180  
 gcctcatgga ttttccttag gcgtttttgc ccgcgttgac agcagtatcc tgtagatgag 240  
 aaaaataag gcaaatccat ggcttgtgtg tgtgatacta tatcagatta ccagtctgat 300

gcctttgatg gcaaattggc aactgagaat ttttatttcc acanaanana nnnnnnnna 359

<210> 7458  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-G4

<400> 7458

tcgacggggt cctcattgtt caagttcagt tgggttatgc tacttgaatg gttcgaaagc 60  
acaggtttga agatgatttc cctgcatgtt tgggttttgc tttcctgctg atccgtttct 120  
tccctgaact ttcagttatg gttgcttata cagaagagag acggtcaata ttgtatgctt 180  
gtgtatgcta gtgaagtggc atgattcatt tttcttgtgt gtgcatgcta cttatagttc 240  
aaaattgttc gcttgtatat gctactgtaa gtgcctatgt tgaagcacac tatttaagtt 300  
tgttttacac acagaacttc aactagaaac ttttgagaaa gtacgcccgc tttgtttttg 360  
tgaaaagttc aagtatgatt gtttgaaaag tacaaaaatg aatg 404

<210> 7459  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-G5

<400> 7459

cggggatgag gaaggtgact tcgcgaggag cgaagaggaa atctcggaag gagaggagta 60  
tgacaacccc aaggccagtg acgccaagaa gaaacaaata ggcgaggggtg aggagaatgg 120  
cgaggatgat gaggaagaac aagaggagca ggaggggtgga gggggtgacg acgatgatga 180  
tgacgacgac agcgacgatg acaatgagga cgacgacgat gatgacgatg gtgtcgctgc 240  
tgaagacgat ggagatggag tagaagagga ggatgatgac gatgaggagg aggaggacga 300  
tgaggacttg ctccagcccc cgaagaagag gaagaagtga agcccttcga cgcggtctgt 360  
ttagtcacca tgcgacgaga tgtgctgtc cttcactgtg ttctggaaac tttccttaga 420  
gttaaaaatg cccccacacg a 441

<210> 7460

<211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-024-Q1-E1-G6  
  
 <400> 7460  
  
 ccgggtcacg ggtgatccgt atgatgattg tgatatcaag attaggaggg tgaatgttag 60  
 agctaattctt gatatttcta ttagcatggt tgagttttgc atgtagtcta gtctagtgtg 120  
 gtgttcgtcc gacgaaggtt tcagggtgagc gcgccaagga ggtgagatgc caggatgccg 180  
 tgtgaggcgg cgagcacggc gagatgccga tgggtgctgcg tgagaagcgg caagacgtat 240  
 cagaggctgg agccgtgatg gactgcatca aattgggtcg ggtgaaccgg ccggtcgttc 300  
 tgtttgttgg actagctggt catgcgtgag ttcgtttagt cctagctgag agtatcgttg 360  
 ctagtagttg atgcatgcat gtagttggcc tggtcacaag tggttaccga gtcgtgtgca 420  
 acgctggagt gatttcagga gtggagta 448

<210> 7461  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-024-Q1-E1-G7  
  
 <400> 7461  
  
 catgttatca aaagtaccga ccttagtgag ctccgatata ttagatggg catcaaggag 60  
 gtgttaaggt tgcacacctc ggctccgctg ctgcgccag agagaggaga gaggactgtt 120  
 aaatcatggg ctataacatg cctaaaggaa ctaatatctt cgtaatatc tttgtaattt 180  
 ctggggatcc caaatattgg gacaaccag aagagtacaa gccggagagc tttgagaaca 240  
 gcaacgtcga atattatggg acacattttg aattcgaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agggaaaaaa 360  
 aaaaaaaaaa aaacaaaaaa aaaaagcggc ccctcaaaag g 401

<210> 7462  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H1

<400> 7462

gggcacaagg gcattggaaa tggaacgggtc agctatggaa tggatgatgc tgatgacata 60  
tacatgcggt catggactgg caccattatt ggtcctcaca atactgtcca tgagggtcgc 120  
atctaccagc tgaagctggt ctgtgacaag gactaccccg agaaggcacc atctgtttaga 180  
ttccattcaa gaatcaacat ggcttgtggt aatcacgaga ctggggcggt tgacccgaag 240  
aagttcagtg tgctagcgaa ctggcagcga gagtacacta tggaacatgt cttgaccag 300  
ctgaagaaag atatggcggc gacgcataac cgcaagctag tgcagcctcc agaagggaca 360  
ttcttctagc ggggtgtttg ctggcccac cccagtttca acagcagcga tctatgtcac 420

<210> 7463

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H10

<400> 7463

gggcacaact caacacgccc aggtcggttca acattttctt tcgcttttgg tgtgtcgcat 60  
ttagagtcgt tctttcccat tttaccgtgt ttgcatggta agatgtttgg ttggatttga 120  
aggttcatag ccttggtccc aaagcttcaa gctcttatag aaattagaac tgagggcctt 180  
ttaaaatgag tcctgcataa tagtggtggt cagtgggatg cagattgttt ggtaaatctga 240  
tcggctatcc ttggtgctga tttacgtact gatttcatca tcatatgact acaataaaga 300  
agttatgtgt ataaatatta cgaactgctg atactttgca tcagtgattt caattcaaaa 360  
aaaaaaaaa aaaaaaaaca aaaagaaaaa aaaaaacaac aaaaccaag aaaaag 416

<210> 7464

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H11

<400> 7464

ttcgcggggt cacgggaaga aaacaatgag agatccaatc ttggaggggc tctcgccct 60

ctgggcacca tggataccga gtaccagggg gagaacctct ccacatctag gggcatggag 120  
gagcaagcca gagggggtcc ctctcttccc tctctctcga tggcgtcaga atgccaccgg 180  
gggaaccatc tccgcagtaa tcgtctttat caacatcacc gtcttcatca cctccctaata 240  
ctcttttttag cgggtccactc tcccgcgaacc cgctgtaatc ccctacttga atatggtgct 300  
ttatgctata tattattacc caattatgtg tagccatcct atgatgtttg agtagattat 360  
ttttgtccta tgggttgatt tatgaacttg attggtttga gttgcatggt ttactttggt 420  
gttatectat ggtgccttct gtgacgcgcg ca 452

<210> 7465

<211> 401

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H12

<400> 7465

cgaaaaaaat ataaacgaag tcaaaaaaac acaaaaaatg tcaaaaaaaa aaaaaaaaaa 60  
tggccgctcgt tattaaaaca tcttgaaaaa aaaaaaaaaa aaaaaaaaaa aaaggggagg 120  
cccaaaagggt tcaaacctta cttacccttg aatgcaaatt caaagccctt caaaagggcc 180  
cccaaatttc aattcacggg ccgtctttta aaaacttcgt aacgggaaaa acccgggggt 240  
tcccaaatta aaccccttg aagaaaatcc ccctttccca acttggttta ataccaaaaa 300  
ggccccacc gtttccctt ccaaaaattt gccacccta aatggcaa at ggaaccccc 360  
ctgtaccggc ccataaacc cggcgggttt ggtggaacc c 401

<210> 7466

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H5

<400> 7466

cgggcttatt agaagagcaa gtgcagggga gggctgggc aatgccttct tatcccatat 60  
acgtgctgtt gatggaatct tcatgtctt gagagcattt gaagacacgg aaatcaccca 120  
tattgatgat acagttgatc ctgttcgtga tttggaaact attactcaag aactgaggct 180

caaggatata gagtttgtgc aggctaaaat tgatgacett gagaaggcaa tgaagaggag 240  
 caatgacaag caacttaaga tagaccatga attatgtcag aggatcatga cacatcttca 300  
 agacgggaaa gacttacgtt tacgagaatg gaaagctgct gaaattgaga tcttgaatac 360  
 ctttcagctg cttactgcta agccagttgt ttatttgggtg aacatgagtg aaaaggacta 420  
 cctgagaaaa aagaacaagt t 441

<210> 7467  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-024-Q1-E1-H9

<400> 7467

ttcgcgggggt cacgggagca tcttatggga tggaagcgggt tgcggagggc aaggcccagt 60  
 aaccctgaaa gaagaaagac ggccctgccc ctgatgtttg gaaggaaagg ggcgtgtggt 120  
 agctgatgta atgttacacc gtagaatcat cgttcgtgac gataataatg atccgaccag 180  
 aactcctcta gtatcattgt tctgttgtca ttgtgtagtt tactctgtat ctgaactttg 240  
 ttttactcag cgaaaccgta ctgctatgat gaatgtgtcg atgtaaactg tgggtgtcgt 300  
 gcctgtctga ctgatacatt gttcatgtag tcgatgaatg atagcacctg tgtcgtctca 360  
 gtttcaaaaa aaataagaaa ctaaaacaat aaagaaaaga aaaaaaaaaa aaaaaaactc 420  
 aaaaacaatt acataacact t 441

<210> 7468  
 <211> 130  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A1

<400> 7468

tacggtccta cattccgggt ccacgggggg ccgaaatgct aggcgagctc tgaacgtgcc 60  
 aggcgatcct gttgcagttt actccggact cgcttgaagg tgtccgggggt ctgtatcgcc 120  
 gaattagtgg 130

<210> 7469



<211> 365  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-A11  
  
 <400> 7469  
  
 ccgggtccac ggggcacggt tatggcgctcg tggcggcggc cgctcgtctct gctgtcttct 60  
 catccatctt ctgatttttg gacaagcaca cgctctttta tcctctccct ttcttctatc 120  
 cttcatgttt gtttacataa ctctgcaagt tcccacacaa cgacacgatg ctttagatga 180  
 tctatatcta ctcacgtggt aagaggattc gttcggatga cttactcttg ttttacccca 240  
 tacaagtaga tggaaagttg agacttggtt ttcttcatgt ggaagtgatg gttttagta 300  
 atatcctgaa aaaatgtggt tatgttcttc ttgttctaata tgaaatctgg tacgcaaacg 360  
 ccatg 365

<210> 7470  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-A2  
  
 <400> 7470  
  
 ggtccgacat tcacgggtcc acggcgaagc ggtcattcga tgctgagacg ccgcggcggc 60  
 gggagtcggc acgcagcaac gaggcggtcg aggaggcgcg gatcaagctg ctggagctgc 120  
 ggcaggtgaa caacgtgaag gcgctcgtcg ggccttcga gaccgtcatg gacgacagcc 180  
 aaagcatcgc caccgcacgc aagccgctgc tcaacctcca tgctgaact acgagtacat 240  
 tccaccagca tgaaactcga tcgctgcgc ctctccttt agcccggtc ctctttaatc 300  
 acccatcaac ccaatttgtc gtcgtcgac acttatctat aattacggta tcgcttatac 360  
 tttgcaacga ggaagatgat ggacgggtta tcatgatga ataata 405

<210> 7471  
 <211> 103  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-A3

<400> 7471

tctgtaaact gaagccaacc cagcgggtcaa tctgaactct gtccacacag gagatcgttc 60  
acctggatgc ggtgctcacc acgataccac cagctgaaca tcc 103

<210> 7472

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A4

<400> 7472

cggctctact tcacgggtcc acgggcaacg aataaagcat tatatctcag gtacgcctat 60  
taatgttgaa agcaatatta tccaaacttt tacaccgaaa gaacacataa aagagtcctt 120  
ccggaacact ccagaatcgt caaaataagg aggtacgtga tacggtaagt aaacggactc 180  
caaaaaatct gcaaaaatat tttttatcga tcttggtata ttttaaaatt ttggaaataa 240  
agaaactccc aggaagcgtc acctgatggg cataatacac cagggtacgc caggctttcc 300  
tggcgcgccc aggtgagttg tgcccacctg ggacacctcc tgtatttcat ttttcttcca 360  
tgtacttgcc ctgcaagatt aaaaatctac ataaacttac caaacatggt aaccaccata 420  
tcacggagaa atcctctggt ctcttttctt gctattttct gacag 465

<210> 7473

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A5

<400> 7473

acgggcaagt cccaccttct tcccacaggc ggatcaggga gcctctgcag attgaccttc 60  
gtttggattc ggattcaggt ttgatccaac ccaaatccaa atcgtctgat ttggcaaggga 120  
tttgatcaac aactggggat cctgagttga atatgatatc aaatccggtg aattggtaca 180  
gtttcgggcc tggatagaag ctgtagtgat gccagattgg aaggcgggag agtttgaagg 240  
taaattcaac gatgaatttg ctcggggtaa tagcaacttg caagaagatg gagcaaggcc 300  
tttgaatatc tcaaataaga aactgaaaca tgggattaac actgaagaga acccgcaagg 360

tgtcgtgtct acaacaac

378

<210> 7474

<211> 374

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-A6

<400> 7474

gccaacgagg aaagcataac atctcatgta cgcataattaa tgatcaccac aacagtaact 60

aaacttttaa accgaagtca catttatcag attccttccg gaacactcca gaggcgtcag 120

gataatgagg tacgtgtgac cggttttaca ttcgggccag aaaatctgtc tttaaacctt 180

ttaccgatct tggcaaattt gaaatctttg gaatatgatt caactctcag accacctttc 240

cctgtatgag cataatagag gagcgcaagc catgctgtct agtcgcgta aagtaacttc 300

tggatcatcag cgatatgcc tgaatggcaa tgttcttgca gctgtatgca ctgaaacatt 360

gccccacttg actc 374

<210> 7475

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-025-Q1-E1-A7

<400> 7475

cggggtcacg gggcgaggat aaggaagggg ggtcggccga ggcgaatgaa gacgaggcgg 60

cgtcgtccaa cgagaaggac atcgaggaga tcaacgtgga ggatgacggg agtgctcgcca 120

tcgcggatgc ctccgtgggc gtagtcacca aggaggatga cagtatcatc tcggccgatg 180

ctccggcgat agagaaggac cagatcgaca cgttcgtgcc tgctccggca gccaaaggcca 240

acgatgatgc cgggtgccacc ttcttggtg ccccggtggc cgggtgatgat ggcagtgctt 300

ccttcgttgc tgcgccggcg gccaaaggagg acgaacttgt atccatctcg tctgctccgt 360

tggcggagga gattganggt atcatcatgg cggctgtctc ggtcgtgac gatgttgatg 420

ttgcaccttc ccggacgctc cggtggcc 448

<210> 7476  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-A8  
  
 <400> 7476  
  
 ggtccacggt acgacgggtg atctgttcag gagcccgctct gttgttgctg ttgacctcag 60  
 gcaagaaatg gtggagtaca ttacacaatg aagtgaaacg ttcatactctg atactctcat 120  
 tgaatcggac gtggaacaaa acgctgacaa tcaaattgcca gatgaccctt atgagggtcat 180  
 atcaatcttc atggatgaat tcagtcgcac gagaaggaaac atcattggcc atgtctctgg 240  
 gtggttggtg agcgacagcc gcgaagataa gatcgatgat tttgtccagg aaatggatat 300  
 gacccgcttc tggacactag aaaggagaga agggatcgcc gaggtcctcc tcaagaatgt 360  
 ggacattaat actaagttcc actgccctga gaaatatg 398

<210> 7477  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-A9  
  
 <400> 7477  
  
 cacgggctaa aggataacca gatcaagtct gtatcgtgtg tgtcccccg cgtgagcccg 60  
 tgggtgctgt cgtggagtga acgatctgca tgcgcatagc cgttgccaac tgttggagtc 120  
 acgtgcatg tgcgcgcggc tggagggagt tagctgcatg ctacctatat ggttggacgg 180  
 gtcattgctag tgcattgcaag gcgcagcccg gcgggtcacg tggatcatgca tggatatgga 240  
 tcgtgcatct aatgggttagc ttaatgcgtg agttatttgc cgagtgtgca cgtcgtgtgg 300  
 tgtgtgtgca ccgttataag aaaccctccg tctatgtact gctcgagctg aaccgggtgtg 360  
 taaccatgta accactgtta ggaagaaaag gattggggcg ttcattgctcc cg 412

<210> 7478  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB104-025-Q1-E1-B1

<400> 7478

gggccacggg ccctctgcat ggagtagaca aagagaacac agacatatta atgtactgca 60  
cgggtggcat aagatgcgac gtctactcaa cgatcttgan ggagaaagggt ttcgggaaac 120  
tgtacactct gaaagggggc gtgtccaact tactcaagac caaaggagcg ctgagtgggt 180  
gggtaacctg tttgtgttcg acgaccggct ctccctgcca cgggccaagt ttgcangggc 240  
agaagtcgca gcagaagaag ggggtgccga caacggggat ctgtcatcgt ctcggtggct 300  
ggggcggtgc tacttgtgcg ggtccgangt ggaggagctg angcaacgca actgcgccag 360  
catcgactgc aaccgcctct acctgtgctg 390

<210> 7479

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-B11

<400> 7479

gggccacggg gaagaggccc ttcaaggtag ctgagatggc tctgagggtg tgcgtgatcc 60  
ccctcgctt ggcctccctg tgggagatgg ccaccaacaa gcaagccgat gacacctacg 120  
gggagatcag cttctccaac ctctccggct tcaagtattt agttttcatt aacgctgtca 180  
ctgccgcta ttccgtgggc tccatcctga tgtcatcctt caagtccctc gctcgcttcg 240  
attggctcat tttcctcctg gatcaggcgg cggcgtacct gctggtgaca tcgtgctcgg 300  
cggcggcgga gctgggtgtac ctggccaagg aaggccaacc ggaagtttcc ttgggccaag 360  
ttttcccc 369

<210> 7480

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-B12

<400> 7480

attcccgggt ccacggggag gttgagaagc tgattggcag gatagtgaag tggctgaagc 60

ccggtgggca tattttcatc agggagtcct gcttccacca gtctggggat tccaagagga 120  
aagtgaacct gacgcactac cgggagccaa ggttttacac caaggtgttt aaggaatgcc 180  
actcctatga ccaagatggg aattcctttg agctttctct ggtaacttcc aagtgcattg 240  
gagcttatgt gaagagcaag aagaaccaga accagatatg ttggctatgg gagaagggtca 300  
agtgcacaga agacaaaggc tttcagagat tcctggacaa tgtgcagtac aaatccactg 360  
gaatcctgcg ttatgagcgc gtgtttgggg aaggttatgt cagcaccggt ggattcgaga 420  
ccacaaaaga atttgtggac aagctgga 448

<210> 7481  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-B2

<400> 7481

ggctctacat tcacgggtcc acggcgctgt tcaacgcgac caagtgatct ggccgccgag 60  
cagcgacgcc atgcgacgcg atgatccggg agcagagcgg cttcggttaa gaaataaata 120  
aagaggatcg gtgctccacc gtgctgcggc cgtgtggtgt tgggtgtgat tgtttgcttg 180  
ttgcagtggc tgcattcact ggctgggcac caagattcgt tagataagat aaatgtgcac 240  
gtacgtgctg tattcctgaa cttgtactgt gacgagcg 278

<210> 7482  
<211> 305  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-B3

<400> 7482

ggggtacttt gattcgataa ctaatatatt tttgcaataa gtatgtgagt tctttatgac 60  
taatgttgag tccatggatt atacgcactc tcacccttcc accattgcta gcctctcttg 120  
tgccgcgcaa ctttcgccgg taccatacac ccaccattac cttcctcaac acagccacca 180  
tacctaccta ttatggcatt tccatagcca ttctgagata tatttccatg caactttcca 240  
ccgttctgtt tattatgaca cgcttcatca ttgtcatatt gctttgcatg atcatgtagt 300

tgaca

305

<210> 7483  
<211> 477  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-025-Q1-E1-B6  
  
<400> 7483

gtacagtcca aaattcncgg gtccacggga ggagggcacg cgggtgctcct gctgccgggtg 60  
ctgctgatct cggcgctggt cgcgcagatc cgcgcgtcgg atccgttggt ccacgagtcc 120  
ttcaacgaga gcttcgacgg gagctggatc gtgtccggca aggaggagta caaagggtgta 180  
tggaagcacg cgaagagtga tggccatgaa gactatggtc tccttggttag cgagccagcc 240  
aggaaatatg ccataatcaa agaacttgat taccagtgta ctatgaagga tgagacagtt 300  
gtcctgcagt ttgaagtgag gcttcagaat ggccttgagt gtggagggtgc ttatatcaag 360  
tacatccgtc ctcaggctac cggatggaac gccaaaggact ttgacaatga tactccatac 420  
acaattatgt ttggtcccga caagtgtggt tcaacgaaca acgttcactt catectg 477

<210> 7484  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-025-Q1-E1-B9  
  
<400> 7484

gggtccacgg gcaaagggtg gcatagagcg gccaatgcgc agacaagatg aggaaagggc 60  
gcggtcagga ctcacggaca cggagctcca gcggtccggc catggcagcc gaactgcggg 120  
ggcgacggct aaacgacgat ggaacgggca gggtaagggg gaattgatac gtctccaacg 180  
tatctataat tttttattgt tccatgctat attatattct gttttggatg tttaatgggc 240  
tttattatac acttttatat tatttttggg actaacctat taaccggagg ccagcccaa 300  
attgctgttt tttgctatt tcagtgtttc gcggaaaaag aatatcaaac ggagtccaaa 360  
cggaatgaaa cctttgggaa catgattttc ggaacaaacg tgatccagag gacttggagt 420  
ctacgtcaaa aatcaacgag gaaagcacga gcaagggg 458

<210> 7485  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-C1

<400> 7485  
  
 ttcacgggtc cacgggggtg cggatcttgg tgtggttgat atgcatgcag gggctcgcgt 60  
 gaggctggac tagctggaca tggctacggc catggttgcc ggctgggttca gagaagatga 120  
 gcgtggggcgt gtgcgcaagc gaggagcaga gaaaacaagg gagcctccgg cgcattgcag 180  
 cgggacggcg aaggagctcg ttggaggaaa ctccggcgac caaaagctac ggctgaggtg 240  
 cgcaaatgaa ccgcaacggg gacccgaact cgcgcatgtc tcgcacagca ccaagtgcag 300  
 atggangcgt cgccggtgtt gaggaaacag aggcggtgag gccatacttg aactcgaaga 360  
 aacaca 366

<210> 7486  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-C12

<400> 7486  
  
 ggggtccacgg gggaaccgct acatcgcgcc gccgaacctg gcggcggaagc tgatcacgaa 60  
 gcggctgtac gcggaggagg ccgagtggaa gaactgggtg tggcactcgg agggggacct 120  
 gatgctcaac gacgccgtct tcaccgacag cggcggtccc aaccaaagga agttcgagaa 180  
 ggatgacctc atcccgccca agccgggatc gtacgtcacc aggtcacgc gcttcgcccg 240  
 ctgcttgccg tgcaagcccg gcaagccctg ctaaaccttg gtggccccgc cggccggccg 300  
 gagccgatcc cttccgaatc ttcaattctc tatatagctt tgttcaattc ttttactcaa 360  
 agattcgtgt atgtattact aggacatttg agtagtctac ggggttcaga tcagaggacc 420  
 ctgtaggttg ttcttgatca tgcatt 445

<210> 7487



<211> 313  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-C4  
  
 <400> 7487  
  
 ggggccacgg gaggacatga aagaatttcg acgaaagata atttgattaa gcgcaactgg 60  
 acatgatcta ctaggtgtag tttctgtgat cgggatgaaa ctatcaagca tcttttcttt 120  
 gattgcccgga tggcgaaggt gttgtggcgc tcggtgcaaa ttgcctttta cattactcct 180  
 tcaaatttgg tcaggctcgtt ttttggaacg tggctggttg gtatagaggc tgaaacagct 240  
 agacaaattt gagtgggagc atgttttatt cgggctact gcgctaatac gtacgtgggc 300  
 attactcact ccg 313

<210> 7488  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-C6  
  
 <400> 7488  
  
 ggtccacggg gaaccacata cggatgtatg tggatgcatt ttagaatgta gattcatcca 60  
 ttttgttccg tatgtagtcc atagtggaat ctctacaaag acttatattt aggaatggag 120  
 ggagtatatt ccaatgatgg gcttcctcaa attgccctag gtctttgtga tgcacaccca 180  
 cttagtttct ttttgagctt tcatacactt atagctctag tgcacccggt gcacggcaat 240  
 ccctactcac tcacattgat atctgttgat gggcatctcc atagaccatt gatacaccta 300  
 gttgatgtga gagtcgttaa tagcatggta atttggcct tctttcttga tctctcatgc 360  
 ttcacttaga ttattttgag attcgttaat agcatggtaa ttttcttaat gttaatatatac 420  
 ttagtggtca agatatgtga aactttct 448

<210> 7489  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-C7



atcagctgcc ctgccaacac tagcaacaaa agcaaacagg gctgcaaacc cttaacgggt 240  
 cgatgcacgg actaaacatt tctccgtaaa tgctgtgtga ctggtttttg ctggactctg 300  
 ggga 304

<210> 7492  
 <211> 286  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-D3

<400> 7492

cgggactgac tgagagaaca tgacaaataa ggagttgcat gataaatttc agcaaattgat 60  
 gagtgaacat gtgcaagatg tgctaaacag atttgaagag gccatggaga agatagatgg 120  
 catggagaag aagttcgaaa caaagctcaa taacaagttt taatgaattg ctgcgcgcgc 180  
 ttccaccacc accaccggct ggccctaacg canctctaca acaacaaaca acaacatcaa 240  
 caaacaacgt cgtttttcca aatcaagtgg gaacaagcac aacgtg 286

<210> 7493  
 <211> 83  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-D4

<400> 7493

cgggtcacgg gactgtcatg atgaggcgag agccggtcgc tgttcgagag gtttttgcga 60  
 gtccttaaag acttattcca cat 83

<210> 7494  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-D7

<400> 7494

cgggtccacg ggcaggttta agtgttctaa tatagctttt gttaacacag ttgaaacttt 60  
 agcatgttcc ttaatcctaa cacggaaagg tgtggtttct caatataagc agaaggaaca 120

actggatcaa cattataaag tatagtttcc tctttaagta gaactagttc tttaatttct 180  
tctttaatgg gtgggtgata tttaaaccac ttctccttat ggagttcaat atgggtagca 240  
aatgattcac aaaaggaggg tactatctca gagtcaagtc catatttagt gctaaacttt 300  
tgaaaagcat cagtatcaat aagagattta acacaatcat acttaagttt aatacctgac 360  
tctttacctt cgtcgagttc ccaatcttca gagttgcgtt taattctttc caaaagattc 420  
caccggaatt caatagtct 439

<210> 7495

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-E10

<400> 7495

gggtccacgg ggaagttgaa aagctgattg gcaggatagt gaagtggctg aagcccgggtg 60  
ggcatatttt catcagggag tcttgcttcc accagtctgg ggattccaag aggaaagtga 120  
acccgacgca ctaccgggag ccaaggtttt acaccaaggt gtttaaggaa tgccactcct 180  
atgaccaaga tgggaattcc tttagacttt ctctggtaac ttccaagtgc attggagctt 240  
atgtgaagag caagaagaac cagaaccaga tatgttggct atgggagaag gtcaagtgca 300  
cagaagacaa aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatcc 360  
tgcgttatga gcgcgtgttt ggggaggggt atgtcagcaa cgggtggattc gagaccacaa 420  
aagaatttgt ggacaagctg ga 442

<210> 7496

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-E11

<400> 7496

ttcccgggtc cacggggagg gatggatacg ccatcgatgg gagtacgatg ggggtggtgag 60  
gcctgcacag ctgcacagcc ggccgccgag gatagagcag gcagtcgcgc cggcgcttgt 120  
ttaagcggct ggagcatgaa gagcacatat tgaataagca cgactgtcat tggatggaca 180

tccaacagtc actgcttgtg tgtcaacatt tttttaogac aacctcaagt ctgtggtaaa 240  
cagcatacat tccatctgcc attatttcta ataatttaca tcccatttgc taattcgtat 300  
gggttttttg gagcccagat tctttttgtt agcattacaa cccatattgt ggcacacggt 360  
aaaccactat acgaaatttt gcataattca gtgctgtcca aactattttt aatcccacaa 420  
tttcgagtca gattcagact gatttta 447

<210> 7497  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-E2

<400> 7497

ggtcgacatt cacgggtcac gggctctgatc aattgaatca tgcactttga tgtgacagtt 60  
ttagtcaata gaagcttaat tatagaaaat tgtggaaaca aagcccatgt tctcatctgt 120  
aagtggctag ttcacaataa tgtcatattc ctaggaaaat tataaatcac tatgggggta 180  
agcgggttagg cacaattttc taaaaatgta ttattttcaa taaacgaaca taccaatcca 240  
caaatagtgg acgcaccaac agaagatttg atgccagcac agtaactcat gagtgaacct 300  
gttataacaa tttcgacaat acaaagattc ggctatcaaa tgaatactac aaaaattaca 360  
aatattattc gttatccaaa agggaaaagt aaaagatgaa gaaacaccta cct 413

<210> 7498  
<211> 374  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-025-Q1-E1-E3

<400> 7498

cggcaggatc tttacctgat ctctcggaca aaaacagctt aactttgaat tatggtggcc 60  
ttttttcatg taattctttg accgcagcag cagcttaacc ttagagcaga acacattact 120  
ggctacttat tatgagtttt gtgaaatttg catcatgttt gtatatggta gaagtgtggc 180  
agtggatgat gaattgaatt gactaagtta gagtgaagtg tttggttgaa gattgcggta 240

ttgcatttgc cagaancaaa ntaactcatg aatgaacctg ttataacaat ttcaacaata 300  
 caaacattcc gctagcactt ttctcgagca aaaatacaaa atattactcg ttaaccaaca 360  
 ggggaaaagt caaa 374

<210> 7499  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-025-Q1-E1-E4  
 <400> 7499

cgggcccaaa gcaccaaga taatatttca ataagtctca agcatctaag cttggggatg 60  
 cccggttggc atcccacctt tcgtcttcaa caactatcgg ttagtatcgg ccgaccta 120  
 gtttttgctt attcacatga tgtttaccat tcttagaatg tcattttctt ttgctttgat 180  
 tgatgtttga ataataacc aagatatgaa attattaaat gttagagagt cttcacatag 240  
 ctaaataatt atttaactac tcattgatct tcacttatat ctttcggagt agtttgtcat 300  
 tgctctagtg cttcacttat atcttttttag agcacgggtg tggttttatt ttgtagaaat 360  
 agatgaactc tcatgggtca cttatatcaa tttgagagta tttagaacag ca 412

<210> 7500  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-025-Q1-E1-E6  
 <400> 7500

gggtccacgg ggtaagcgca agatagaaga cctgcacgaa ctcataccgt ctacgcaatc 60  
 ttctggaaat aaaacgagaa cgaaacgtcg gcgcaacgga caacggactt cgactcggag 120  
 acagcaatca cgctgtagtt tcaagacgaa cttctttctt aaaatcgagc aggagcaatc 180  
 gccgaaccac gcccgtgcc tcagtccgac cacggccgc tcctcgattt cgcaaggtga 240  
 acatgcgcac gatgggtttg ggattgggag cgccgttctt cctcctcgtc ctctcttgc 300  
 tggccgctgg cactggagct gtgccgcagg acaagatggg tcgcatgaat tatgttcttc 360  
 tcgatctcaa tacaatcgag atccgcccaa atgacaagga ggaaattgcc tctagcaaaa 420

ttcctgt 427

<210> 7501  
<211> 267  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-E7

<400> 7501

aatccatgc tgccaactct caaggtcctc ctcatccccg ggattctcaa tccaaccccc 60  
ttccgtaacc cctcccgaag gtcaactgaa ccttgtaagt agatatccgg aaccaaccca 120  
aatccttttc ctttttttcg gaaaaaccaa caagagcaat ctccgaaaca agcccgatga 180  
gccaatctcg aacaaagagc acacaaaaag gggccgctca agaatactaa ctcttaatga 240  
ctcgtaaattg gaatgtcata cctcttc 267

<210> 7502  
<211> 262  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-025-Q1-E1-E8

<400> 7502

attcncgggt ccacggggca tccatacaaa atggaccaac tacagaaagc aaccctggcc 60  
tcttccggag taccgggaca attgctaaac cataataaca aactgggaag aattcaacaa 120  
caggctccag gccaaaccaga gcaacacggt gctgtgaatt aagaggcgag caagaaggac 180  
ctgaagagcc ggggcttggt cctcgtccca atctcgtgca cgtcccactt tggcggggac 240  
aacgctgctg actactgggc cc 262

<210> 7503  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-E9

<400> 7503

tccaaaattc ccgggtccac ggggcgtccc gaccctcac tcataaacat acacgtaacc 60

cagaagaccg ttctgtcacg tatacacaac gtatcggcat ctgtctatgt cccactcaag 120  
catgataatt tgcacaatca gaactcaatg tctggatcac aggcacagga tgcgcgagatt 180  
ggcgtccgg cagaagacaa atacggacag agatacacgt cacctctcaa tgaagcagac 240  
aaatagagta ataagtgaac taacgcgcaa ctaaaacgtc tagctcgagt ctcttacagg 300  
ttggagctaa attcatctat atggaaatat tgtagcttcg agaactttcg taggagtctc 360  
ggtagcataa atactatgaa agtacaaatg gtagaataat gttccaggat tggtttagat 420  
acatcgagat gttaagtgga tcgatttc 448

<210> 7504  
<211> 312  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-F1

<400> 7504

cggggccacg ggtacttgca tagtacttac aacatgtagg ttgaattcta ctgaacatcc 60  
attgagtaac tgagtgggtgt gaatgcatgt ctcatacaac ccttgagaaa tatgacataa 120  
tgcaatgtat ctcaagttaa aattcccaag tcatgtgata tatcaagatg aaaaatggta 180  
tggggcctta ctaatgcaa cctaaaatgc atacaagtct caagtcaatc tattgatcct 240  
aagctagaac atttcatata taagataaaa gatcaagtgc caatgtttcc cttcgcatgt 300  
tacaaaatgt ta 312

<210> 7505  
<211> 372  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-F10

<400> 7505

gtaatggtat gcctgcacca cgacctcagg tacgagatca tgtccagatt cctaaagtga 60  
tattgaatac tccaccatctt gagggtagat atgttcctga taggtatctt acttgggagt 120  
tagatactga acaacgattt acatgtttac aatatcctga ggagagacga gttgctgctg 180  
ctgtttgtgc tttcactagt tttgcatgtg tatgggtggtc tgaacattgc agattatctc 240



ctattcgacc tatctgggct gcttttgaaa gttctatgcg taccattcg gttcaacata 300  
 ttttcaacgt gcattgcttc aaaatttgca gcgtttaagt acaagggaaa acttccggtc 360  
 atcaatatta tc 372

<210> 7506  
 <211> 256  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-F4

<400> 7506

gtccgacatt atcgggtcca cggcgagggt gaaaagctga ttggcaggat agtgaagtgg 60  
 ctgaagcccg gtgggcatat tttcatcang gaatcgtgct tccaacagtc tggggattcc 120  
 aagangaaag tgaacccgac gcactaccgg gagccgagggt tctacaccaa ggtgtttaag 180  
 gaatgccact cctaattgaca anangngaatt tcctttgagc tttctctggt aacttcaaag 240  
 tgcattggag cttatg 256

<210> 7507  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-F5

<400> 7507

ggtccacggg tagtaccgca tagacagtag ccctgatgc tcggttcggt gttcggaaat 60  
 aaaagccgga ctgaggatct taaaagatat acgcaggagt cataaaaata tgtcaatatg 120  
 ggattgcagg ctgcactgct gacctctgcc gcactgactg cggagggtcaa tactttgaag 180  
 caaatctcg agcgggtcaa gaacgagctc ggccgtgcc aagaagcagct cgaggacaag 240  
 gaaggtagt aacaccttat taaaattgta ccttacataa aaggattttg gttgaagaat 300  
 gacaaggata acgtgggaat tgcangggcc actaacgagg tggtgaccct g 351

<210> 7508  
 <211> 409

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-F6  
  
 <400> 7508  
  
 ggtccaccag ctcatggtaa ttaattatgc tagcgagaat gtcatectcg cttgccaggg 60  
 acttcagcac cgccagctca tcgcgatcac cgacgcggct agtgcgcttg tgaaagccct 120  
 tgcgtgctgg tgagaactcc tttgacggct ccgcagccca tcaagacatc tctattgtgg 180  
 atgtcgcgta acggcgagac ctctctagtt cttttgcgac cttgggtcatt gtccttggg 240  
 tatatgtcat ccaaaactcc tcctatcggc catggcgga tgacttgaca agtaagaact 300  
 attttgtag tgattaagat acgaaacgtt gagttaattt ctagtgggta attttaaac 360  
 ccggtgctaa gtgttaacat gtttaagttt gattcgtgtg aacaaattt 409

<210> 7509  
 <211> 316  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-G1  
  
 <400> 7509  
  
 ggggccgctg caattcaagg tgggtggtgac cggcgggtac gacgggaagt ggggtgtgggc 60  
 cgaccgggag gtgctgcca gccggtggcg cgccggcgat gtctacgaca cggnggtcca 120  
 gatcacgac gtcgcgcang agggctgctt tccatgcgac acgcangagt ggaggtgaaa 180  
 gcaggcaggc tagtaaacia acaaagagcc aaagaagaag ctgatggctc ctcgttttgg 240  
 ccgggctatg catcacagca caaggccaca ccacaccaga gatgattagt ttagtctaac 300  
 agttaacacc agatga 316

<210> 7510  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-G11  
  
 <400> 7510

ggggtccacat gggcaacatg ctgatgatgg acaggttccg tcaatggcag gccacgcaca 60  
 accggtcgta cctgagcgcg gaggagagggc tgcgtcgctt ccgggtgtac cgcgacaacg 120  
 tggagtacat cgacgccacc aaccggcgcg ggcacctcac ctacgagctc ggcgagaatg 180  
 agttcgccga cctcaccag gaggagtcc tagccaggta cgcgtcgctc tacgatgggg 240  
 tcggtgatga tactggcatc acgttgctg tggggcggtg cgacgccgag ctgtggtcgt 300  
 ccggcgccga caatgatagc tccttgagg ctccgcctcc cagctgggac tggagatcca 360  
 agggcgccgt cacaccggc aagtcccaat gcgcaggatg cgctagctgc tgggcgttcg 420  
 tgacggttgc gacgatcgag actctgaact gg 452

<210> 7511  
 <211> 86  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-025-Q1-E1-G2  
 <400> 7511

cggggttcca acaatgatga gctgggaact gtgctgaact gaagatgggt gaagatatc 60  
 acggtttgcc tgagtttgct ccatat 86

<210> 7512  
 <211> 220  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-025-Q1-E1-G3  
 <400> 7512

ctggttctta tcctgtgtg atgcatggc tgttgataca cgcgatttg ccagattatg 60  
 cgccattggt gtatctacgt gtcattatgg tactcattgc tttgtgtcat attgtgttcg 120  
 tccggtatta gctctcttac agaacgtttc gattgaatgc cttgcctggt ggttcgtaac 180  
 cgaccatcat tacttcgtat gatcttcgct attactggct 220

<210> 7513  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-G5

<400> 7513

cggggggaat gtatggttg gttttatttg tgtatttggc ggaatttggc atattttaac 60  
caaacccttc gcatgggctc gccgtgcatt tgtatggtct ggagaagctt acttgtctta 120  
tagtttagct gctttatctg tctttggttt tatcgcttgt tgttttgtat ggttcaataa 180  
tacagcttat ccgagtgagt tttatggacc caccgggcca gaagcttctc atgctcaagc 240  
atttactttt ctagtttagag atcatcgtct tggagctaata gtgggatccg ctcaaggacc 300  
cacacgttta agtaaataatc taatgcgttc cccaactggg gaggttatct tttgaggggg 360  
aaactatgcg tgtttgggac cttcgtgctc catggttaca agctctaagg ggcccc 416

<210> 7514

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-G6

<400> 7514

cgggttacgt caatctatta ctaacactta ttaccaagtt gcacttgctt ttcaaaagaa 60  
attgaaacta taacgcctga gactatccaa tagaagaaag agccacaagc aagccatagc 120  
agcatccttt ttcttcgctt tcttcaacaa tttatctacc tcaactcctca tcataactca 180  
aatgctcgtc ttgactctat catatcttcc ttgcatatgc atcacatcat aatttcaagc 240  
tttatcagat ggagtgaaga gtacactttt agtggtcctc ttagtgagtt ggtttatgtc 300  
aaacaacctc ccggttttga aaaaccccca tcacatttaa caactccatg aagcgctcta 360  
tggactcaaa caagcatctg gtgcttggtg tgatcacctt aagacgtatc taaacgagaa 420  
gggggt 426

<210> 7515

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-G7

<400> 7515

attactaaca cttattacca agttgcactt gcgtttcaaa agaaattgaa actagaacgc 60  
 ctgagactat ccaatagaag aaagagccac aagcaagcca tagcagcatc ctttttcctc 120  
 gcgttcatca acaatttate tacctcaatc ctcagcataa ctcaaatgct cctcttgact 180  
 ctatcatatc ttccttgcac atgcatcaca tcataatttc aagctttatc agatggagtg 240  
 aagagtacac ttttagtggg cctcttagtg agttgggtta tgtcacacaa cctcccgggt 300  
 ttgaaaaacc gcgatacatt taccaactcc atgaggcgct ccatggggccc aaacaagcat 360

<210> 7516  
 <211> 134  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-H1

<400> 7516

cttccatctc acagacactt ggcttcgggc aatcgatgtg ggagtggaca ttgtgttggt 60  
 tccttcgaaa tttgggaaaa taagcaatca aatttaacct ggcaactaaa ttccaatcca 120  
 atttgaatc ccaa 134

<210> 7517  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-H10

<400> 7517

gggtttgcta gatgattatt gttcccataa gttgtttgct cacaaaatcc ctatgcatag 60  
 gaagtgggtt agacttaaata gtgctagtca tattcttcat gatgctctct ttatgtttca 120  
 attcttatct tttatgtgag tatcattgaa atcatcatgc ctagctaggg gcgtcaaacg 180  
 atagcgcttg ttgggaggca gcccaacttt atttttgttc cttgattttt gctcctgttt 240  
 agtagtaaata attttaccta gcctctgttt agatgtgggt ttatactttt aattagtgtc 300  
 tgtgccaaagt agaacctttg ggaagacttg ggaaaagtct ttgcgatcat gctgtaaaaa 360  
 aatagaaact ttagcgctct cgagaattgc tgccattttt tattggagag tgctattta 419

<210> 7518

<211> 324  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-025-Q1-E1-H2

<400> 7518

ggaagatcta aaacaatata tcttctgtgc aaatataccc caacataact cattacattg 60  
 tcttccttgt ccanattcaa ctaaatttct caagttttta ataaataaag ggtaatcaaa 120  
 atcatagaag atgtccaaga taatataatt gtatgtgaaa agttccctcc ctatactaata 180  
 cattcaagaa tttcttgtat gatcaatatt gtcattgtca agcttcaaaa gatttcactt 240  
 tctaaaccca atgtgaagcc aatactaagc atgatatgaa catataattt caaattcatg 300  
 atattcaatt cattcaacaa tttt 324

<210> 7519  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-H4

<400> 7519

agtcagtgga tggagagcta cgagcagtgg atggagagct aagagaaaaa aaacatgtga 60  
 aaaatagagt gaagttcaag tagacatgcc gagaagttca agttcttcac gcggcgcatt 120  
 ttcgaagaat ttgttttgcg ataaaggcag aacgaatgat ctgccattt ttgaaattac 180  
 ttgaaaacga ccaggaatca gagaaaacca tcaacatgaa aaagtttcgc attttccgta 240  
 gcttttcaac ggtatattat ttgccccatt ccgataaaact ttgcagaaaa tacggcaaaa 300  
 aatatgtttt taaccatttt cagaactaac ata 333

<210> 7520  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-025-Q1-E1-H5

<400> 7520

cgggtgatct gtacaggagc ccgtctgttg ttgctgttga cctcaggcaa gaaatggtgg 60

actacattac acaaagaagt gaaacgttca tagctgatac tctcattgaa tcggaggtgg 120  
aacaaaacgc tgacaatcaa atgccagatg acccttatga ggtcatatca atcttcatgg 180  
atgatttcag tcgcacgaaa aggaacatca ttggccatgt ctctgggtgg ttgttgagcg 240  
acagccgcga agataagatc gatgattttg tccaggaaat ggatatgacc cgcttctggc 300  
cactagaaaag gagagaaggg atcgccgagg tcctcctcaa gaatgtggac attaaaacta 360  
agttccactg ccctgagaaa tatgaaaacg aggaacgtct tgctgatcac aaggcacagt 420  
gtagcttcag gcctgtcact tggccgaacg a 451

<210> 7521  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-H6

<400> 7521

cgggtctcac ttgagcggta gcacggccgt taacatcaac ggcgagatcg gtcctttctt 60  
ccccacccta tgtgggggttc aacaaggcga ccccttctcc ccgttcctat tcaacatggc 120  
cgtggacgcc cttgccacca tcctggataa ggcgaaggct gctagccata ttcgtggaat 180  
cacccccacc ttgccggagg gtccgggatt tcctcctct agtatgccga cgacaccatc 240  
atcatggctg aaggctcgga ggcgaacatt tccaacctca agttcctcct cctctacttc 300  
caacaaatgt ctggccttaa gattaacttt gacaagagtg atgttatggc gatgggcatg 360  
aggagtgtct agccattgcc aaccggctta actgccgcct gggctccttt cccatgacct 420  
ac 422

<210> 7522  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-025-Q1-E1-H7

<400> 7522

cgggtgcaga acaatgatga atttataaat gttgtaaaat ctcggttgac aaagctagag 60  
atggtgcggc atgtctttaa cctaaatggc atcaaaggag caattgctgc ggctcgaaag 120

ttgcctgata ttgctgttca agctgatgtt gttagtactc tcaagggaaa acttggctctt 180  
 ttcaacctag atatcttctc aagccttctg cctgttcttg ccgggttact gaacagcaaa 240  
 actgaaaggc atgctattgt tgctttggag atgttattgg atcttataaa gatttttggg 300  
 ccggttattc attcaacatt gtcaagtagt tcacctgttg gagtagatct tcaagctgaa 360  
 cagaggttgc agcgttgac ccggtgtttt aaccatttgc aaaagattgt gcaagctcta 420  
 caccggtga tga 433

<210> 7523  
 <211> 325  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-025-Q1-E1-H8  
 <400> 7523

ccgcatttat catggtagtc aatacgcgga tcgccaagct aaagatagaa cgggatcgac 60  
 atagtatcat aggcagcaga tgagtaatcg ctgaggaccc gaacttacat gatatcgcg 120  
 tgcaatctga gattgctagt actcacagt taggattagc cttgtcagcc tacagagttt 180  
 cgcattggcat ccgcctattc ttggggagac acatggaacc acagcttatg cagatagcac 240  
 tgttgcctag gctatggat ggccctgtaa agcaactcct cgtacggcta gtccatcagc 300  
 aattttacgt ggttcaactg ttgga 325

<210> 7524  
 <211> 211  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-A11  
 <400> 7524

gggcgacagt ataatcacia gaaatatata tataggataa taaggtgggtg tattgccgcc 60  
 atgtccgtta acctgaggtt ggttccacca aaaaaaacccg ttacccccgc caaaaatttt 120  
 ccgacccaag ggaaaataat aacaacggga aaaccacca aaatcaaacc ggcttgtgaa 180  
 ataaatgggtt gcgccccggt tttttgtgc c 211



<210> 7525  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-A2

<400> 7525

ggtcgtaatt acgggtccac gggcatcacg gccaaagagac cgtggaacgg agacggcgtc 60  
 ctgggtccac aaggctcctc cgggggggttg gtttccccta acggaacccc ggctgggaac 120  
 cccttcgccc ggggcccggg tttttacaaa ttaagggtccc cgtcggtcct ggaagccctg 180  
 cctttccgct ggaaccgcga catacacgcg tgcttaaagg tgagcgacgg ccagctgcgc 240  
 tacgttcaga tccatggtgc atctgagaag ccgggtggtca gcatctggac gctgtcatcc 300  
 agtgattcgt caaaggcgac atggggaagc ccgaccagcc tccccttgga tgtgggtttg 360  
 ggaagacagc aactacagtg atgatccccg gttcgtccgg gggtcgtccc tgctttgcgc 420  
 ctggtccacc ccatg 435

<210> 7526  
 <211> 111  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-A3

<400> 7526

tggaatcggc tccgatggtt ttgtgacgag aacaatgttc ttggtgcctc ctgacattta 60  
 ggggttgtgg cagtgtcccc gngagttgag ctcccagagg gttgtcgtca t 111

<210> 7527  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-A5

<400> 7527

cggggccacg gatacagaag acgaacaggt gagtggagag aaaaggatgg gagacgaaat 60  
 atctgtacag cttatcatgt tctctgtccc cagttcccta tctgaccacc ccagcttgca 120

acagtagcaa attgatgcct gtcgtgtcca gttgagcaga tgagagatca aatgagcatt 180  
 tcccgtggcc tctataacaa ctagcaagta aggattcatc gacttttact tctttttgtg 240  
 gatccaaacc atgatgtctt tattgtatac taacatgatt tttctgccgt agatgactcc 300  
 accgtgcttg atgtaccgga cacattgctt gatcacactc attgtattta ctttttccct 360  
 aatgctttat tatgtttttc ttgagaccaa gctaagtcac ttaagctgat gttttgccag 420  
 atcgtctttt ggtaaatcat ctcatgcaca tatcaacaaa aa 462

<210> 7528  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-A6

<400> 7528

ttcgcgggtc cacgggcaga ttggcatgag ccctgccgag gcggcggagt acaacaaata 60  
 tatcattcgt gaggttagtt ccgggtcagg cacaccgctc atgccaaagc ggaagttcga 120  
 gacgtacata ttcacgtctt tcaacgagga cctcaagccc gggcccgtgg ccgagcgcaa 180  
 tttcgggatg ttccagccag acttcacgcc gatgtatgac attggcatca tgaaagatcc 240  
 ggtcaaaaaca acatcgggcg cagcgtcggg cgtcccagcg gtgccgcaga aagtgcacgc 300  
 aatgcctatg gtcgctgctg ctaatgcctt ggaagctgga gtgcctacaa aggccaacga 360  
 ctccaacaac gcctagggat ccacgcaagc atcgtcgcca ggcaacaaat ccttgaccga 420  
 tgac 424

<210> 7529  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-A7

<400> 7529

gggtccacgg ggagcacaga aaggacggcg agcacaagga gggcatgatg gagaagatca 60  
 aggacaagat cagcggcgac ggccacggcg acggcaagaa ggacggcgac cacaaggaga 120  
 agaaggacaa gaagaagaag aaggacaaga agcacggcga gggccacaag gacgacgacg 180

accaccacaa caccatcatc gcatccatt agcattctac cattttcctc ggagagaagt 240  
 agccagaaac agcagcgcca tggccggcat catgcacaag atcgaggaga agctccacat 300  
 ggggtggcggc agcgacgagc acaagaagga cgatgagcac 340

<210> 7530  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-A8  
 <400> 7530

cggggagaac agaaaggact gtgagcacia ggagggcatg atggagaata tcaatgataa 60  
 gatcagcggc gacggccact gcgacggcaa taaggacggc gaccataagg acatgaatga 120  
 caagacgatt aagaaggaca ctaagcacgg cgaggggtcac aaggacgact atgaccacca 180  
 caccaccatc atctcatccc attatcattc taccattttc ctcggcgtga agtaaccata 240  
 atcagcagcg ccatggccgg catcatgcac atgatcgagg agaagctcca catgggtggc 300  
 ggcagcgacg atc 313

<210> 7531  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-A9  
 <400> 7531

gggtctgcaa ctatacagct tcgtatgtag ttgcagatc actacgtcat tctgtacatg 60  
 ctgcttccat gctccacttg gagatattcc aaatgggttg ttccactata cgtatccggc 120  
 ttgctactta gagtcactca gataggtgtc aaagcttgca tcgacgcaac tctttacgtc 180  
 atcctcatta tcagctccat atccgagaag catatccgta ttctctaat gatagttttg 240  
 accgctatct ggtgatctac tccttgataa cctttgtatc ctcttgccag atatgtatca 300  
 gggcacacat caagtgcgct acttataata ccgtagagcc gatgtctgaa gcataaggga 360  
 ctaccttcgt 370

<210> 7532

<211> 366  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-B1  
  
 <400> 7532

```

gggtccacggg cccaatggtg catgaatcag atatccagca cggtgtgtca tcatggactg   60
gcattccagt ggagaaagtc tcgacagacg aatctgataa acttcttaag atggaagaga  120
cattgcataa gcgtgtcatc ggccaagatg aggctgtgaa agcaataagc cggtccgttc   180
gccgtgctcg tgtgggcctc aagagcccca acagaccaat tgcgagcttc atttttgcag  240
gtccccactgg tgttgggaaa tcagagcttg caaagacgct ggcatcatat tacttcggct  300
ctgaagaagc catgatccgg ctggatatga gtgagttcat ggagaggcac actgtgtcca  360
agttga                                           366
  
```

<210> 7533  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-B10  
  
 <400> 7533

```

gggtcaattc caacgagtct gtaactgcag cgaggcgagc gtctgggaca tgcattagta   60
catgcgatta gataatcagt aacacaaacc cacaaacggc aacctgccct tgattagata  120
atgccatata aaatccgatg gatggaacaa caaggtagct gcagctgcat gcatgtaaaa  180
ttgagtccat atccacgagt aaaggctgct gcatgcatat ggcagcaagc cagccagcca  240
gtgtacgtgc agctgcagcg aggcaaaggg cctggatggc tccggcactc ttcggccttc  300
ccgaagtcga agatcacttt tcggtcaaca gtaagttgaa gttactatth tcagcccagc  360
tgaccacttt tccgccgatt ggaggctaaa aagctc                                           396
  
```

<210> 7534  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-B11

<400> 7534

ggggagaagg gcattggaga tggaacggtc agctatggaa tggatgatgc tgatgacata 60  
tacatgcggt catggactgg caccattatt ggccctcaca atactgtcca tgaggggtcgc 120  
atctaccacc tgaagctggt ctgtgacaag gactaccccg agaaggcacc atctgtttaga 180  
tttcattcaa gaatcaacat ggcttgtggt aatcacgaga ccggggcggt tgacccgaag 240  
aagttcagtg tgctggcgaa ctggcagcga gagtacacta tggaacatgt cttgaccag 300  
ctgaagaag at 312

<210> 7535

<211> 392

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-B12

<400> 7535

ttcacgggtg cacgggaaac taataagatg taaaatagac ccaggggcca taggtttcac 60  
tagtggttc tctcaagata gcataactat tacgggtgggt gaacanatta ctgccgagca 120  
attgatagan aagcacgtag ttatgatgat atctaaggca atgatcatga atataggcat 180  
cacgtccgtg acanagtaga canaacgatt ctgcatctac tactattact ccacacatcg 240  
accgctatcc agcatgcac tagagtatta agttcataag aacggagtaa cgcattagggc 300  
aagatgacat aatgtaaaag gataaactca ngcaatatga tataaacccc atctttttat 360  
cctcgattgc aacaatacaa tacgtgttgt tt 392

<210> 7536

<211> 336

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-B2

<400> 7536

ggggccacgg ggtttaccac aatcatcctt gctgtacaca ccttttggga taagcctatt 60  
tgataagaat ttgcagaaaa acccaagtgc ctcaattata acctttgggc ctgaaaattt 120  
tggcccaatg cttcaattat atgtttttaga gcacgatggg ggtgtcttaa ttttgaagaa 180

attgctagtc tctcatgatt cacttatatc attttgagag tcttttagaa cagcatggta 240  
 tttgcttttg ttacaaagt ggctcctagaa tgatgagcat ccaagttggg tataataaaa 300  
 actatcataa ggaagtaa at tggatgctat gattaa 336

<210> 7537  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-B3  
 <400> 7537

ggccgggaat cacttataga cttctacact agctctggga agcgaaagcc agaccaagtt 60  
 attattttca gggatggagt tagcgaaagc cagtttactc aagtgataaa cattgagctt 120  
 gagcagatca ttgagggcatg caagtgcctt gacgacaagt gggagcccaa gttcacggcc 180  
 attgtcgctc agaaaaacat cataccaggt tttccagac aaactcgcca gaaaatgttc 240  
 ctctggcac tatggtggat aaacaagtgt gccatcccaa gaactttgac ttctacatgt 300  
 gcgcgcatgc tgggatgatt ggcacgtcga ggccaacgca ttaccatgtt ctgcatgatg 360

<210> 7538  
 <211> 328  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-B4  
 <400> 7538

gggtccacgg gttgatcctg atgaaaatca gaaacttttg aaccagtaa attagttttt 60  
 ttaattcaca taaacgtgat tttgatcgta ttctttttga tctggattgg taaaacatt 120  
 tctaaggtct tccaaatttg gaaaaatttt tggagttcca gaagtatgag tttgatgcaa 180  
 atggcaaaaa acggtccggt tttgacaagg tccccctttc aaggggtggg tgcctaattt 240  
 gaagcaacca aggctaataa aataatttat aaaccataga taagttggga tacaatatgg 300  
 ttaacacaca aataaataaa gaaagagt 328

<210> 7539  
 <211> 457

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-B5  
 <400> 7539

```

gggtccacta ggccgtgtca gatcatcacg tgagacggac tagtcatcgt cgggtgaacat   60
tctcatgttg atcgtatctt ccatacgact cgtgttcgac ctttcggtct ccgtgttccg   120
aggccatgtc tgcacatgct aggcctcgtca agttaaccct aagtgttttt gctgtgtaaa   180
actgtcttac acccgttgta tgtgaacgta agaatccatc acacccgatc atcatgtggt   240
gcttagaagc gacgaactgt agcaacgggtg cacagttagg ggagaacact tcttgaaatt   300
tttgtaaggg atcatcttat ttactactgt cgtcctaagt aaacaagatg cataaacata   360
ataaacatca catgcaatta tatagttgtg acatgatatg gccaatatca tatagctcca   420
ttgatcttca tcttcggggc tcctgatca tcttgtc                               457
  
```

<210> 7540  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-B6  
 <400> 7540

```

ttcgccggtc cacgggacga caagacgccg gatgtcccgg agcaggccga tgcgtatgga   60
cgtgagttgg tggatgaatga agggcctgtt acaatagagg gtaagccgat ggatgtccat   120
cccacaatgg aagatggcaa tgtgcaggat gttgccgtgg aggcagaaaa tactactcgg   180
gcttcataaa tcagaagagt ggatgcaaga tcagcaattg gtacaaaaat tctctgtgct   240
tgttgtccat atgggtgaag aataaagaac ttagaggtgg ttgtagaatg tgacgaacag   300
cagtgtgctg tgcgcctctg cactcgtagc taagtgagt accatgttgt aagatggatt   360
tctggacaaa tcaggtgtaa agatgtaaga ttcccaaaca atctgtacgt atatatatac   420
ccagact                                           427
  
```

<210> 7541  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-B7

<400> 7541

tgacgggcct caagctctac tgatgctatt atggctgaag cagaacttac cttaaagtct 60  
cctgctgatg ttgacgcaga tctactgaag gatgatgatg atgctcagct actacagcaa 120  
gcactcgcta tgtcaatgga tgaggggtgct tcaggagctg caaccgtggc tgatgctgct 180  
atggcagaag ctgctgcata tgaccaggat ttggcattgg ctcttcaaata gtctgtccat 240  
gatgcagatg cggctgggtca atctgatatg agcaaagtgt ttgaagacag atcatttgtg 300  
acatccatcc ttaattcgct tcctgggtgtt gggcccaatg acccatctgt gacagattca 360  
ctggcatctt tgc 373

<210> 7542

<211> 312

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-B8

<400> 7542

ccacggggag ccataaaaaa catgctcagt ctccgctggc cgggtgtccaa gagcaaccca 60  
agccaagaac caacctgccg ggggcaatgg aaacaattta agttaatggg aaattgtggg 120  
cgctcacagg gtcaagggtta cctgcacaat gctagccacg tacttactta cagtgcattg 180  
gccatacata caacacatgg acatttacac aaatggcaca tgtgagacac tcccgggggc 240  
aggcacccta aactatgtgt acaatttacc tgtgggggctt acgtgctttt atgaggaggt 300  
aaaccctgt gt 312

<210> 7543

<211> 434

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-B9

<400> 7543

attccgggtc caatggaaaa tggaatcagg agtggcaaga gcctaagctt ggggatgccc 60



aatgcacccc aaggtaatat taaaggacaa ccaaaagcct aagcttgagg atgcccaga 120  
 angcatcccc tctttcgtct ccgttcacg gtaactttac atggagctat aattttattc 180  
 accacatgat atgtgttttg cttggagcgt cttttttgc ttgttggttg aataatatcc 240  
 caaaatctga aattcttaaa tgtagagag tcttcgcaa gttacataat tatttagcta 300  
 ctcatgggtc ttcacttata tctttcggag tagtttggtg tttgctctag tgcttcactt 360  
 atatatTTTT agagcacgac ggtgggttta ttttgaagaa atagatgaac tatcgtgctt 420  
 cacttatatt attt 434

<210> 7544  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-C1  
 <400> 7544

ttcacgggtc cacggcgagt gcgacaaagg tgccatggcc gccatagccc agtctgcgcc 60  
 ggattctgtg ctgatgacat tggcggagtt tgagacggca agagaggtgt ggaatgcact 120  
 caaagagatg aggattgaat aaaatcgtgt cacgaaggct cgggcacaag tgctgaagcg 180  
 ccaatttcac aagttgcaga tggagaaaac tgaatcgggtg aacgactatg ccatgcgtct 240  
 gactactttg gtgggagaga tccacgcgct tggtgcaaaag ctcgacgaga ccgagattgt 300  
 ggagaagttt ttcagttcgg tgactgataa attcacgtac atcatcggca cgctcgagca 360  
 gctttacgac atcgacgaca tgaccat 387

<210> 7545  
 <211> 168  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-C10  
 <400> 7545

gggacggggc gagaacgcag nggactcgga cctgcagctg gagcggatta acgtctacta 60  
 caacgaagcc aaccggggac cgttcgtgcc ccgcgccgtg ctcaaggacc tccaaccccg 120  
 gaacatggac tccgtgcgct ccggggccct ccggcaaatt ttccgccc 168

<210> 7546  
 <211> 278  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-C12  
  
 <400> 7546

```

ggggctcagt ttatgaaata gaggtgaata atattttgag cggataactt tcattgtcaa 60
cataacaaca aaaaaatggc aaaaccttca aggcaaaaaa cataaaaggc gggtccaaac 120
caaaatggta aatttaaggc ccccccttca acaacaacc atcaaccaat ggcttgccca 180
aaacaatgat tgcctcaaac taacaaaatt cccgggggga gttttgtttg caattatttt 240
gatttagttt gcataaagca tggaactggg catcccg 278
  
```

<210> 7547  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-C2  
  
 <400> 7547

```

gggtccacgg cggaagaatt agcaatgcta aattggtgag aagagagcga gaggaagatg 60
atgaggcgag atggaaaagg ttgattttat aactggatgc taggcttaaa tcagaggaca 120
tggtancgga agaacaagat gtcataattct gaataatact gaaggtactt tcagtaaag 180
ttctgcaa atagtcatcc agaacgccag gatgtgtggg gacaaaatgt actctattgc 240
ttcacatggg aatggcttca gttccgctac tgtcacgagc ctgaggttct gatcctacac 300
ctcggtgct cgccagaag ctaagtcata ccaatttatg ttagttcttg agattttttt 360
gtggctttgg atttacagtc tgcaaatgt gtttatgctt ttaacaatcc ttccagctct 420
aacatacata tgttttttt 439
  
```

<210> 7548  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-C4

<400> 7548

gggtccacgg gacgaggaga tatcgggacg gagagatccg gcatgggcaa ggctgtttgg 60  
ttggtgggat ggggtgatct tattgtgaaa atgttctgat cctatgggtg aaggggtgaaa 120  
gggtgtgtat tatattagtc tttgcttttt agtttaccac aatcatcctt tctgtacaca 180  
ccttttggga gaagcctatt tgattagaat ttgctacaat actctatatg cttcacttat 240  
atcttttgag cttgatagtt ttttctctag tgcttcactt atatttttta gagcacgggtg 300  
gtgtcttaat tttgaagaaa ttgctagtct ctcatgctta acttatatta ttttgggagt 360  
cttttagaac agcatgggat ttgctatggg cataaagttt ggtccaaaat gatgagcatc 420  
caagtgggta taataaaaac tatc 444

<210> 7549

<211> 277

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-C8

<400> 7549

tcataatacg aatctgtact ctcttgcaaa ttttaatttaa cggctgcgac gattacatgt 60  
ctggatagaa catctgacga ctcatctcag gttgaactgc cgaggagagc aattgtttct 120  
tggcctgact gtttagatac aacttacgac gttgctgtct cgcattgtccc tattgtgtct 180  
tcattcccg gcaattgtcgt tttcaattag ctgtgatcat cgtttgctct ccttgtctcc 240  
tcacgcctct gtgcagcct gctctcctga tctgttt 277

<210> 7550

<211> 392

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-C9

<400> 7550

cggggcgaaa ggacacatat tatggttaca tagtggacat atgggaactt gactacggag 60  
tagattttta ggtccctttg ttttaagtga attgggtcaa tctgtcatga ggcgggggtac 120

aggtagaccc acagtacgga atgacaacag tggatctgaa aaatcttggg tacactgacg 180  
aaccgttcat cctacgcaat gatgtggcac aagttatcta tgtgaaggac atgtctacca 240  
gactgaggaa aagaaaaaat aaggaagcga atacatcata cgatgagcca aagtgccaca 300  
tagttctttc aagaaaaagg gacatcctgn gagtggaggg caagacagac atgtctgaag 360  
agtatggaat ctttcatgaa attcctccct tc 392

<210> 7551  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-026-Q1-E1-D10

<400> 7551  
gggtctgtcc caacagtttg tcggcgcctt catangcgga caaaagcctc atggccagga 60  
gagtgatctt catctgctcg ccataagga aggagagccc ctgcgcaagt acattcagag 120  
attcagcagt gtgcagcaca acatcccaaa cgtccaccct gccgcggtga ttagcgcgtt 180  
ccatcaaaac gtgcgaaacc gcaggatgcg ggacgaaatg gcgatgtgca agattaagga 240  
cgtcagtgag ttatatgcac tggccgacaa gtgtgcacgt gctgaggaag gaaggagacc 300  
ccccggagaa aaatgtagga gcgggaggat ctaacattga agatgctccc ccggcaagga 360  
aaaaccggcg 370

<210> 7552  
<211> 174  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-D11

<400> 7552  
cagcgacaag gggggccatc aagggaggat gtataaagcc ggaaaccgtc ccgcccacca 60  
gaaagccgtg tttctgcctg ccgtgtttgt ttcacgtgt ttgtgtctgt ctgtcgtcgt 120  
cgtcttcgtg attttgaact ttctctagac tgaattttgt acccgattta aatt 174

<210> 7553

<211> 299  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-D12

<400> .7553

gtccgacatt cacgggtgca ccgcgacgga acaatcacct acggcgggcta ctccagcatg 60  
 gtgggtgtgc acgagcgctt cgtgggtccg ttccccgacg ccatgccgct ggacaagggc 120  
 gcgccccctgc tgtgcgccg catcacctg tacaccccc tgaagtacca cgggctgaac 180  
 gctcccgga tgcacctcg cgtgctgggc ctgggcgggc tcggtcacgt cgccgtcaag 240  
 ttccggaagg ccttcgggat gaacgtgacg gtgatcagct catcgccggg gaagaagca 299

<210> 7554  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-D3

<400> 7554

cggtccgaca ttcacgggtc cacggcgctg tggccacgct gcgcaaggac gttgacagcc 60  
 ttgcttcag ccccatcacg accacctcct cctacttcta cggcaaggcc attgccaggg 120  
 cggcgaggct ggcgctgac gccgaggagg tcgggtgccc cgacgtcatc cccgcgggtgc 180  
 atcggttctt gaaggccacc gtcacgccgt ggctggacgg cagcttcag gggaaatggtt 240  
 tcctgtatga tcccaaattg ggcggccttg tcaccaagca ngggctgcan gactccggcg 300  
 cagactttgg ctccgggatc tacaacgatc accactacca tttgggctac ttctggtat 360  
 ccattgctgt 370

<210> 7555  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-D4

<400> 7555

gggtccacgg ctgacaccat agtacacata tacaatggca actcccaatt tagtgtcata 60  
atccttcgat aaacatggct gcaaaaaggc attatcagtt attgtagacc cggttccgcc 120  
tccggttcaa aaaaggcgtc cctacggtag tgatatagtg aaaagttccc atttttatcc 180  
tcagcctatg caaaggcagc catttatcat agtgaatggg ctcccagtg aatcaccgcc 240  
aatcgaaggg cagtgcagtg cccaactgga aatggacaag tcatgtcaag gcagcanggc 300  
tgcaataaat actctcccct ccgagtcac tgggtctcaga ggttctttat cctctgaa 358

<210> 7556  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-D6

<400> 7556

ttcgcggggtc cacgggggaa tgggagccca tgaccgagtc atgggggtca atctggcggt 60  
tggacacgcg gcgccccatg cagggacgct tctcgctgcg cagcaccaac gaggccggca 120  
agacgctcgt cgccggcgag gtcacccgc tcagactggg atcccaactg agatatacag 180  
ctccatcact ccagttcgac taatcttttt tagtcgatcg atcatctgat ctaataccat 240  
atatagatcg gaaaatataa tgtgtgtgtg aagacgcac atagcggtgc gtggtgtcgg 300  
tgtatgtact ataactgatg aagcaataac cgctctgtga tcgatcgagt tggctcatct 360  
tagtgccata cgtagcacgg tgagacgctg cctgtgacct ccggtgatta gtgtcgtcct 420  
ccaacgtgta cccagttcca tt 442

<210> 7557  
<211> 79  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-D7

<400> 7557

gtgatcacta tgctgagtcg tcttacatat gaaccaaccg agatttttcg tacatgttgt 60  
ctaaatctga gacgctttt 79

<210> 7558

<211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-E10

<400> 7558

gggtccacgg catcctggga gagatcatcg accacacgga gtaaattcctc aagactggca 60  
 tgtcaccgcg gtcggagaag aacctggtgg aggttctcct cggcctccac ggaaatgaag 120  
 actttggctt ccccatcacc cgctccacgg tcaaagcatt tatcttgaac atatatgcgg 180  
 gtgggacaga cacatctcca tggatatgggt cacggcagag ctgatgatga antcaaaggt 240  
 aatcaggaag ctgcaagaaa agatcagggc cggcggtccg cgagatcaat ctccggacga 300  
 gcggaagttg catcaagtac cttggcttgg tgatcaagga gacgttcaag ctg 353

<210> 7559  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-E11

<400> 7559

gggcatgacc aaattaccag gaaaaataat aaacttgtaa tatggcaatt cttttaaaaa 60  
 aagtgttatc agaaatgaga tatcatgtgt gaagatttat ggctttcaag ccaaattggtc 120  
 aatcttatgg ccagattcat ggcatagttt gttcaaata tctcatatta tgcacaaggg 180  
 tgcattcttg aaaggcaaac aatgttgtct aaggaggttt tcattttctt tggacaaaaa 240  
 attcattttt tatttttcga atgccccaaa tgagtttttt tttgtgaagg acctaccata 300  
 tatttgtaac aaaattgggc caaataaatt ttccaaaata ctatgccata tttgattcac 360  
 aattgacaaa atagttgggt atcaaaagtt ttgatccacc tctgatgaaa aagacaaaat 420  
 tccgccgatt c 431

<210> 7560  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-E3

<400> 7560

gggtccacgt ccgcggacga agtgcagcgc atgatggcgg agatcgacac cgatggtgac 60  
ggcttcatcg acttcagcga gttcatctcc ttctgcaacg ccaacccggg gctcatgaag 120  
gacgtcgcca aggtcttctg aatcagttca tttcacctca gccgtccgat ccaggagccg 180  
atccatctac gtacggcttc gtatatcaat ttcattgcaac tacctactcc ggtcccgatc 240  
cagcctcagc ttcacctgaa gccggcccta attttgtttg atcaattttt tgctactagt 300  
agtaactagt gatgatcact gttgcaccat ttantttatt tatatcgtca caactt 356

<210> 7561

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-E5

<400> 7561

ttccccgggtc cacggggcacc atagacaacg tcaaggcaaa gatccaggac aaggagggca 60  
tgcccccgga ccagcagcgt ctcatcctcg ctggcaagca gcttgaggat ggccgcaccc 120  
ttgctgacta caacatccag gagtccaccc tccacctcgt gctaaggctc cgtggtggta 180  
tgcagatttt tgtcaagaca ctgacaggca agaccatcac cttggaggtc gagtctcgg 240  
acaccattga caatgtcaag gctaagatct aggacaagga gggcatcccc ccggaccagc 300  
agcgtctgat cttcgcgggc aagcagcttg aggatggccg cactcttgct gattacaaca 360  
tccagaagga gttccacctc caccttgctc tccgcctctg ttgtggcatg cagatctttg 420  
tcaagaccct caccggcaag actatcac 448

<210> 7562

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-E6

<400> 7562

ttccccgggtc cacggggggt catcaaakat ctacacccat gcccatcgca atgccttcca 60



tgccgggtcc ggcactagcc ctggcactgc tcggtgcttt cggcctcgcc atcgccccgg 120  
 ctgttcagtc ggccccacc atcgaggcca tccaagctac atgcgccaag acaatacagc 180  
 cagactcttg caaacacgtc ctgctcgcca acatggccgc cggctcaccg gaggtgaaca 240  
 gtgtcacctt aatgtccctg caagtcgagg caaagctcgc caagatggcc aacggcttcg 300  
 ccaatgccat gtcaccacg gaccgcacc ccgccaatg cctcgcatat tgcacgaag 360  
 accttcatag ggtggccaac gcatttgacg ggattccagt ggaggcgggtt aaacctggcg 420  
 acgaggccgg ggtgctgtcc ttcagctc 448

<210> 7563  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-E7

<400> 7563

ttcgcgggtc cacgggcaga tgatgattga actgaactat ctgaatctga aaccgccgac 60  
 ccgactcgtg ctttttttga ctccgctttt gcaggatcct gtgaggcatc gaattctttg 120  
 gcaagtctct tcttgctagt gttgtacgcg ttttattcct tcgcccgaca tgctttcgtg 180  
 ataaaagaat catagcaaca tagcgtgagg ttccataggt tgatgagcct gatcagtcgt 240  
 gtaagctatt tactacagcc gtcttagatg gccccaggta tcctcttcgg cttgatcttt 300  
 cctttgcttc gatcgccaac ttgcacttcc ttattccact attgcgatat ctttgcctg 360  
 gacaaagacc aagagctggg gcaggtgaaa gaatagctta tggggctgga gtcaaaggag 420  
 ctttcataga catagaaatc ataatanaaa gagc 454

<210> 7564  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-E9

<400> 7564

gggccacggg aatgttacta tctacaaagc tcgacttggt gcgaaagggt ttcgacaagt 60

tcaaggagtt gactacgatg agaccttctc acccgtagcg atgcttaagt ctgtccgaat 120  
catgttagct attgccgcat tttatgatta tgaaatttgg ccaatggacg taaagactgc 180  
attcctgaat ggattttctgg aagaagagtt gtgtatgatg caacctgaag gtttcatcga 240  
ttcaaagggg gctaaccaag tgtgcaagct ccagcgatcc atttatggac tgggtgcaagc 300  
ctctccgagt ttggaataaa cttttttata gtgtgatcan agcatatggg tttatacgga 360  
cttttgagga agcctgtatt tacaagaaag tgagtgggag ctctgtagca tttctaagct 420  
tatatgtgga taacatattg ttgaatggaa atgata 456

<210> 7565  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-026-Q1-E1-F10  
<400> 7565

gggccacggg aatgcttgta ttgaagttgg caagtcccat agcatgcaca tatggtaaaa 60  
gttgtgtaaa cgtcttattg catctggcgc gcctttgaat gccttctctt gagtggaggt 120  
tcggggcgcg cgatgggttaa ctctaccaa cctccccctt aggagcatgc atagtagtac 180  
ttttcttcga gggctaataa aactcttgca ataagtatat gagttcttta tgactaatgt 240  
tgagtccatg gattatacac gctttttacc tttccatcat tgctagcctc ttcggtaccg 300  
tgcattgccc tttctcacct tgagagttgg tgcanaacttc ggcggtgcat caaaaccccg 360  
tgatacgata acctccatca cacataaacc tccgtatacc ttcctaaaaa cagccaccat 420  
acat 424

<210> 7566  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-F12  
<400> 7566

gtccacgggc gtgtagaaac gacataccta aacacttaag cctctagtcc aggtttatcg 60  
cctattcagg ttccatccgc aggaagtccg gccgaggttc ccataatggc cccgaacgat 120

gtgaacaggg ttcccgaaat acctaacggg tattcggtac accgtgcaat gtacctaccg 180  
catcacagcc caccctacg gtcagcgctg tccacggcct ccagtagct acaaacacca 240  
gaaactactt gcaactcctg aacagagagc tacgggtgaat aagaagtcga gcgggggtcat 300  
atttcagggc ccaatgcatg gtagtagctg tatcttaaata cacatataca gatctcagtg 360  
cttaaggctg gcttcaatga aacaaccac catgtaatcc tacatggcct ctcatcgata 420  
cctt 424

<210> 7567  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-F3  
<400> 7567

cggtccacc tccgcggacg aagtgcagcg catgatggcg gagatcgaca ccgatgggtga 60  
cggttcacg gacttcagcg agttcatctc cttctgcaac gccaacccgg ggctcatgaa 120  
ggacgtcgcc aagggtcttct gaatcagttc atttcacctc agccgtccga tccaggagcc 180  
gatccatcta cgtacggctt cgtatatcaa tttcatgcaa ctacctactc cgggtcccgat 240  
ccagcctcag cttcacctga ggccggccct aattttgttt gatcaatttt tttgctacta 300  
gtagtaacta gtgatgatca ctgttgacc atttatttat tttatatcgt cacaactttc 360  
cagtgggtcc tttccttcct caacctttt 389

<210> 7568  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-026-Q1-E1-F5  
<400> 7568

ttccgggtcc acggaatta agtcaaaaaa aaaaaaaaaa aatataaaca tctaaacaaa 60  
aataaacaaa gaaatccaga tccaaaagaa caggaataaa aaccaagttt caaaaatatg 120  
acgcggtccga tctaaaggat gaaccctaaa ttactcgtgc atgaaacttc aaaccctcc 180  
tatagggtac ccaattatta aattaaccga ccttcattta aaaacatcga gtcgggaaaa 240

cccttgacat taccacttt atcccccttg aaaaaaatca ccttttggca atatgaagtc 300  
 gtactaaatg ggcccgacg gttcacctta ccgaaaaatt cccctactaa atcggttaatt 360  
 gggatctccc tgctaaaggt caatttcgca cgaagggtgt agcggtttacg ccaacattga 420

<210> 7569  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-F8  
 <400> 7569

gggtccactc ctcgaccaat gacgctccat cccaacccca ccaatcttca ccgctgcttg 60  
 acgacatgga gctgaacacc gctgcaacca tgggtggcgcc cctcttgacc aagcaaaaaa 120  
 atttgagata tctcatatat tggcaaagct aatgcctgag agggagctac ccaaacaagc 180  
 atgctttata tttgggggtgt gtaggctgga aggatcattg gtaattgatc ctatcaaagg 240  
 aaggcgcgat ctccagcctg aaggaatggc tgattgattt agctatagga agcaatcctg 300  
 ttctgcgatt gattgctgga atcatattta tccaagagca agactacaca cgatgctgtc 360  
 aagcacacac acacaacgga ggaactctgg acatttcctc atcttctgac attggaagag 420  
 gatgcactaa gttataaagt aataaagtaa gacatgga 458

<210> 7570  
 <211> 250  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-F9  
 <400> 7570

atccatatcc atatactacc accgctacca ccaccgctgc catataccac caccatatat 60  
 ccaccaccaa tccnaattcc ttgcatatta agtttgtttt caggatccat ctactttccc 120  
 attcgtgttt ccttgctctga gtacgtttct gattccagca atcttttgca gtccatagaa 180  
 taagttggtt tccaaaatca aatacgaatc cggaaacccc cctccgttta agcccaaaat 240  
 tttccgaaaa 250

<210> 7571  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-G1  
  
 <400> 7571

ggggccacgg gggcgaatac cataaccatc gcactatata ataataagga ataataaaag 60  
 taagaaaatt agacaagtat ctatctcaag taagaatttt tttctttcag aaagaagata 120  
 agaacaagag gctcaccacg gtggtgccgg cgacgagatc agcgcgggcg atcgacggcg 180  
 gttgtcgtgg ttttgtcacg gcagatgtcc tagagaaagg acttagtcgt ggagccatcg 240  
 ctacgggtta gcttaaaggg gttaaagcgg acaagggacg caagagagtt atatactagt 300  
 tcggccccctt acgatgaagg taaaagccta cgtctagttg tgatggaatt g 351

<210> 7572  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-G10  
  
 <400> 7572

ggtccacggg gcgaaatgga aaacgaagtg tggtcgaggt tctacggcgc cggcttctgg 60  
 aggagcccct cgtcgctcgg cgacgagaac agatgatcgg cacaggccgg cggctcctgc 120  
 atgcatgcga cgccctggct tcgtctacgg ctttcttgat tcttgctcgg gtaggcttcc 180  
 ttcgttttcc tcggagggaa accgatgtan aggaggaaat ggggaagcttg tgtgtcgtgt 240  
 ttgatccaca ccgcattctt gttccacttc caccttatat ccactatttt tttcttcac 300  
 cttttcttgt tgggtgtacg tcctctacaa gggaaatgaa cacttccctt ctttgttgcc 360  
 attgtatgca actaaatata tataccgagt gatgtgattg gggataaaaa aaca 414

<210> 7573  
 <211> 474  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-G11

<400> 7573

cggtccgaac attcacgggg ccacgggtac ttggttagat acatgccaaa tgttacgttc 60  
agattagtgtg cattattttcg ttcattttttt acccaaaaat ctatacaaag tgttaattgg 120  
acaatgtgaa caatgtggca tgtaccctga accctaacc cccccacac acacacaaaa 180  
ccgtaaaaac attcaaaatt ttgccccaca tggaaacat tatgcatgca ttctctatgg 240  
ggatcatggga tgccatgaag aaagtttggg attatacacg caagtacgat ctctgacacg 300  
cgcatttccg gcctagcatg tcaacacccc gaaagcccc ttgaggtata gaccgatgtt 360  
ttgaccagtc agtccagaaa actagctttg tttgtgcaag agatcatgtg tgccaaaact 420  
gaagtgattt ggangtgtcc ananaatcat cgcattccgg agggggccatt tggt 474

<210> 7574

<211> 304

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-G2

<400> 7574

gggtcaggcc gccacagcac cgatcacgaa agaattggctt caccagggag actagatgga 60  
ttcggcccg cgaactgata gggaggatag tgtacggcga actgtctatg tctcagacat 120  
tgatcaacat gtcactgaac agaaacttgc tgaggttttc tcaaactgtg gtcaagtgg 180  
agattgccgt atctgtggtg atccaaactc agtgatgcgt tttgctttta tgcagttcgc 240  
tgatgatgtc ggtgcaagag cagctttaac gcttggtgga accattcttg gtttttatcc 300  
cgtc 304

<210> 7575

<211> 388

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-G3

<400> 7575

ggtcgcacat tcacgggtcc acggggcggc tgcggctgtc ttctttcctt gcttacgagg 60

cgaggagaa ggactacgat ggcgcggagc agccggagcg gcggcgggtc tttccgccc 120  
 ttgctgacga ggcggagaag gaggatgctg gctgctctgg cgcgcggcg caggcagaga 180  
 aggaggcgga gtgccgccac ggcgcggaga aggaggctga gtgccctgat cactcgccgg 240  
 aggaggaggc ggagtaccgc cacgcgccgg agaaggaggc tgagtgcctt gatcactcgc 300  
 cgagganga ggcgaagtgc ccttactcgt tggaggcgtc cagttcgga ggttgatgag 360  
 ctcttccgc cataggcatg gagtcttc 388

<210> 7576  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-G4  
 <400> 7576

ggtcgacggg cttctttgag caatatgaca caaagaaaa atgtcacgga gattgttgct 60  
 cgggcaactt ctcgggcgag gaatgcaacg caaagagcca aatcgggtggg gtgtttgacg 120  
 ctcttcgtgt cactgatgac ctgttgatga ggagggcata ttttaggaag cagcagcttg 180  
 acaacaaaac aacatcacct aactctaact gaagaggaca gccggtgtga tttgctctta 240  
 cattgatatc gcatgcgtat gaataatggt ccaatggaat tgggagcgga gtaagaagct 300  
 catgttgctt ttatgcatgt aataatcatg cctgcctgca tggcccgcga gctgttggtc 360  
 caatgcctgn ctgcctgcct gaactggcgt caat 394

<210> 7577  
 <211> 136  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-G5  
 <400> 7577

taccgatcca acattcgagg gtccacgggc acatcctaag agattgttgc acaagcttgt 60  
 gctgacaagc cagcatcttc gttgcttcaa atctggccga atttgtagaa taaatacact 120  
 acaacagatt atcata 136

<210> 7578  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-G6  
  
 <400> 7578

```

gggtcgacgg ggagaagaac accatcacgt acaacgagaa tgctttcttg ctgtcttgca 60
agtcgatgat gtacattttg cacaaccac caaagcattt tgaaaatttc gtcaaggagc 120
acttcactcg cctcgcgccg cacatcctgg gagcctgcaa cgcatacctc ggcgggcgatc 180
tcgtcggtca tgctggcgac agcacgtaca tatcagatga tggctgcaag agctgctcga 240
ccggattcaa gatcatgctc ggcaagctac tgccgaagct cgtcgccgcc ttctccgaag 300
ccgggatcgc ccgtggccag tgacttcaga gcggggcacac ctectgcatg gcgatggcgg 360
tgacggcacg ccactgcca caccggtatt gtataggttt tgcaataaaa atgctgcctg 420
gcacatgatc cttttgttgc gtgacggcat cttgt 455
  
```

<210> 7579  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-G7  
  
 <400> 7579

```

gggtccacgg gatcatcgta aagaccctgc caccgcgcca cctcagcagc ctgcctgcct 60
acatggcacc gcacgcatcg ctggcctgag tgcggtgctga agcgggacgg tgcggcgacg 120
gacgggacgg gcctcgttcc cgtcctcgat aaagctaattg gacacctaac tagcgcattt 180
aatgcatttt gtcccctaac gtcaggcgat aagctcacgc gctgtacacc tttccacctc 240
ctgtgtgcca ccgtggcaac cccttttcga ctataaaacg aggcccgacg catactggag 300
agggattcgg ctttttgga ctacacaacc gccgtagcta gttcgaaagc tcaagaacac 360
tcaatacatc caccatagca ggactatggt tttacgcac ctcgcgggcc gaacctgtgt 420
aaacgatatt tgtgctggct cctggacctg ctcttctcac aaccccgcg c 471
  
```

<210> 7580



<211> 463  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-G8  
  
 <400> 7580

ggggtccacgg ggggcatgta tgggtggggtt ttatttgtgt atttggcgga atttggcata 60  
 ttttaaccaa acccttcgca tgggctcgcc gtgcatttgt atggtctgga gaagcttact 120  
 tgtcttatag tttagctgct ttatctgtct ttgggtttat cgcttggtgt tttgtatggg 180  
 tcaataatac agcttatccg agtgagtttt atggaccac cgggccagaa gcttctcaag 240  
 ctcaagcatt tacttttcta gttagagacc agcgtcttgg agctaattgtg ggatccgctc 300  
 aaggaccac aggttttaggt aaatatctaa tgcgttcccc aactgnngaa gttatctttg 360  
 gaggggaaac tatgcgtttt tgggaccttc gtgctccatg gttagaacct ctaagggggc 420  
 ccaacgggtt ggacttgagt aggttgaaaa aagacataca acc 463

<210> 7581  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-026-Q1-E1-G9  
  
 <400> 7581

ggggtccacgg gcttcaagac acctgaagac gttcgggac tcacccaaga ctcatgaaca 60  
 acaatttggt gaccagtcac cagatatccc aatactacta caagcattgg acgaacatta 120  
 tgcgtgtgac cctgcggggt caaaaattat gtagtgcaca accgagacac ctctccagtc 180  
 aataaccaat agcgacacct gggttcccat attggttcct acataatcca agatcatctt 240  
 tatccgtcga tgctttatga catcatacat aagtcgcttt gtcagtcctg acgttacgtg 300  
 cacaagattc gatcatcggt atcactatgc ctactttaaa ctcattattg gcaagtcgct 360  
 ttactcgatt catagtacat catcctg 387

<210> 7582  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-H10

<400> 7582

ccatattcga ggaggaaggc gggcggccgg acgccatcat gatcctgacg gtgaagcgcg 60  
acaacatctg cagcttcacg tcggaaacca accccgggca cttgcgggtcg tgggagacca 120  
aggacagcca gctgacgatg gtggcgacg acctgaagcc gggggcggtg ctgacgtgcc 180  
cggagaagaa gttgatccag caggtggtgt tcgccagcta cgggaaccg ctggggatct 240  
gcggaacta cacggtgggc aaatgccaca cgccaaggc caaggagatt gtggagaagg 300  
cgtgcgtggg gaagaggagc tgcgtgctgg ccgtgtcgca cgaagtgtac ggcggggacc 360  
tcaactgccc gggcac 376

<210> 7583

<211> 330

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-026-Q1-E1-H2

<400> 7583

ccggcaggat atctactcag gctgggaatt gcctgaccaa ggtaattaca tatgcaattc 60  
ccccttctaa tccaattcag caatttgcag gtacttatga aacaaaaaaaa ataactgtcc 120  
gtgatcttgc tagatgaggt ggccgagtgg aaggctgccg ggctgggtgt angaggtctc 180  
caacgattcg tgagaagtta gcctaagatt ctagttaagt gtgggtgttg ggttgtacct 240  
gtgctacacg tttgttccca ttcgtggcgc acgtcttgta aatatttttt cccttctata 300  
aaaatatggt acgtctttgt cgtattcttg 330

<210> 7584

<211> 226

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-026-Q1-E1-H4

<400> 7584

gggagctaaa gctgaacatc ccagtgtccg gggcgaaaag gtcccggctc atcatgaggg 60

ccaagggcaa ctaccggctg gtcctgaacg cgagcctgta cgatgacatg tcgctgaagg 120  
 acatggagaa gaagggcgtg acgttcgcct gcatcaacag caccggcgat acccaggcaa 180  
 tgctcatcac gtacgccctc acgttcaagg aactgtcgt caccgga 226

<210> 7585  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-H5  
 <400> 7585

taccgatcca aaattcgcggtgtccacgggg acaatcaaat catcccactt gccatggcat 60  
 ttgtggagggtgagaactttctcagctgggtatgggttcttccgccaagtgaattgccaa 120  
 tcgtgaagga cggaccaaacgtgtgtgtca ttcacgacag acatgctggtataatgaagg 180  
 tcgtgaagac acttcgtaatccaacagatgatgaaccaacaccttggaggacttgcaga 240  
 gccgggtggtgcatgcgccatcttggggctaattttttctcacagttcaagaacaagcgggt 300  
 tgatgaactt gttcaaaaaa ttatgcaagc agagccagca gtgcaaatac gaatttat 360  
 ggtcaaaact agatgagttt actaagaagc aggtccgcgc gaggaagaaa atggaagaag 420  
 atcagggttaa attagcagca ctcatcgcggt agct 454

<210> 7586  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-026-Q1-E1-H6  
 <400> 7586

cggggcatcc ccaatttcttcttcaacaac tatcggttag tatcggttga gctaagttt 60  
 ttgcttcttc acatgagttg tgctatccttgcattgtcat tttattttgttttgcttgat 120  
 gcttgaatac aataccaaga tctgaaatcc tttaatgaga gagagtatttgcatagttgc 180  
 ataattattt agctactcat tgatcttcac ttatatctt cgagtagttttgtgtgtt 240  
 gctctagtgc ttcacttata tcttttagag catggtggta gttttattttgaagaaatat 300  
 atgatctatc atgcttcact tagattattt tgagagtcataatagcatg gtaatttgct 360

taatgttttaa atacttggtta ttcangatat g

391

<210> 7587  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-H8  
 <400> 7587

gggtccacgg ggagcgccat acttatctct gcaacaacgg tgttggttaca ggaatggtgg 60  
 aagactacgc aagtatgcga gcgcccggag atgctttttg cagtttttgc aacatgagtc 120  
 atattgtaga aaattagatg cggcggagat gttgcattaa cttttgcaac aagagtcttg 180  
 atgcagaaaa ttagacgcaa cggaaaatgt tgttgtaatt tttgcaataa ggatcttgtt 240  
 acagaaaatt agatgtgtga aagatgtgca agaaattaga cgcgtaaaag atgttggtgt 300  
 tgcagaaaat tagacacagt gggagatggt gtttgcaatt tttccaaggg tcctgttgca 360  
 gaaaactaaa gaagaagaag ttttgcaaca tgggtcctgt t 401

<210> 7588  
 <211> 225  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-026-Q1-E1-H9  
 <400> 7588

ggcaacactt aatctaaacg tgttatattca tgtagagctc agatcagcga aacactggat 60  
 gtggggtttca gggacttttt gaatgggaat ttgatggcac tatgctgcgc tgtgatttgg 120  
 aagttctcaa cagcacagt acatgtgaaa ttctcttacg tgcaagtcac ctgctctaata 180  
 ctgccattt ttgaaattac ctgaaaagca gcaactctac aggat 225

<210> 7589  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-A1  
 <400> 7589



actgttccgt ttattatgat acgcttcacg attgttatct tgctttgcc 289

<210> 7592  
<211> 234  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-A2  
  
<400> 7592

gcggcggcag aactgatttt gggcgctcg gcttgtggcg agcctattta aacgctgccc 60  
cctggcgggtg tcgcgctcgg gtacggcccg aattcgggtc gcgttttttt agtccgtgca 120  
gaacagaaaag agggagaaat actaaacgga ctccaaaaat cctgaaataa atttccctg 180  
gcttctaaaa tcaggccgca caaggtgaac atttatttga ggctaaatg caat 234

<210> 7593  
<211> 117  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-A3  
  
<400> 7593

tttccttcgg gcagcaatta atctttccaa tacggagatg attcctgaat tcaaataat 60  
ctgtgatacc attcaagata attcctggta cgcttttatt aataaatcct caatata 117

<210> 7594  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-027-Q1-E1-A5  
  
<400> 7594

acgggcttcc aaaagtcttt tggggattga ggacaacccc gaaccgatcg accgaaagaa 60  
ccccattctt tctggtctac ggagccgaac agctttgccg agtgacctgc ttcacaacgc 120  
accccgagtc gagctctact ctgaagatga agcagaacaa gcccggcagg acgcaatcga 180  
cctcctagaa gaagaaagag aaatggccat ggtccgatcg accatctatc agcaagcctt 240  
gcatcgattc catgccagaa atgtgaagag tcgagccttc caagaaggag acttggtcct 300

ccgagtggat taacaaaaac cacacaaact ctacactact tgggaaggtc cttcatagt 360  
 cactagagtc ctctccacc ttataacgt cgatcgccaa gattgatgag caacgaatcc 420  
 tgaaatgcgg aactactttg ccccttttat ag 452

<210> 7595  
 <211> 231  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-A6  
 <400> 7595

cgggcttcaa tatattcatt cgggatagag gacaaccccg aaccgatcga ccgagagaac 60  
 cccattcttt ctggtctacg gagccgaaca gctttgccga gtgacctgct tcacggggca 120  
 ccccgagtcg agctctaate tgaagatgaa tcataacatt cccggcagga cgcaatcgac 180  
 ctctataag aagaatgaga aatgggtcatg gtccgatcga caatctagca g 231

<210> 7596  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-B1  
 <400> 7596

gtcgacgggc atgtggcaaa taaaaatata gttcaagta aagttaccaa tgaacgaaga 60  
 cgaaagaggg gatgccttct cggggcatcc ccaagcttac gcttttggct actcttgaat 120  
 atcttggggg gccatgggca tccccagct taggtcttg ccacccttta ttccataatc 180  
 caaaaaaggt ttaacaaaaa ctttaaaact tcacaacaca aaactcaaca agtaatctta 240  
 taagctccgt taatgaaaga aaacaagacc accacataag gtactgcaat gaactcattc 300  
 tttatttatt tatttttgtg ttaaacctac tgtattccaa cttccttaag gtttataaac 360  
 taatttatta gccatagatg cattgaaata cgcaaacaac acacgaataa cagaatctgt 420  
 caaaaacaga acaatctgta gcaatctgta actaac 456

<210> 7597  
 <211> 412

<212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-027-Q1-E1-B10  
  
 <400> 7597  
  
 accggtcaag tactcccggg cggccgggga tccggaagac ggagggcgaac gaggaggcga 60  
 agctgagctc gttccagcag gagatcgtgc agctggcggc ggtgctgaac ggcgaccacc 120  
 agctaagcag cctgcaggag aggatcaggg agaggatgaa cgtgagggaa ggcacctcct 180  
 acatgaggag cgccgtgcgg cgcttcttcg aggccggcat gtccggccaag aggatgggccc 240  
 tcgccgacga cgagcagatc gtcaagatga ggccctccct taccaccaga atgacctcct 300  
 cccctgcaga tcaagatgat agtccgtaga gagcaacgat gcatacatat ataggatgaa 360  
 gattgatgtt ggaattacca caattcttag tactacacat acatacatag aa 412

<210> 7598  
 <211> 423  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-027-Q1-E1-B11  
  
 <400> 7598  
  
 ggcactctac aaaagtttgc gcacttttcc ccacaagact cgatctcctc cgttgggatt 60  
 ctgcgactac atgatgtttg agaaacggat ggccgagaca aagtctttca aagcgctagc 120  
 accttacgat cgggtagaca gtaccaacct acatccccta catatgctag tctaccactg 180  
 taagagttcg cagcacttag tcaactatgc tagagcctgt agtagcttgt ggctgcatat 240  
 ggaagtttct agtatgaata atctcacgat ccctttgagc ctgggtggcg gtccataaag 300  
 aaaaacaggc aatcactgga ataccagggt gcctcaatcc acccagatgt gtgtttaagt 360  
 tgccacctta aataaaccat taaattaaca atctcacaat ctatcaatgg tacactcacc 420  
 caa 423

<210> 7599  
 <211> 380  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> unsure at all n locations



<223> Clone ID: LIB104-027-Q1-E1-B2

<400> 7599

gggtcgacgg gtgatgtttt aaaatgacct tcccccgatc agagaatggg cttggtctgg 60  
aacggattga gacggaaagc ggtaatcaat cgccgcgtgg tggaacgctt gttggagaag 120  
ggtaagcgcc tccatgtcgt angggtgggt aggccaatag aagactacgg aacttagcct 180  
agccactcag ttctgccccg agccaagtct atttagtgtc agcgaacaca taccactatc 240  
tatatatagg tttttctttt tcgtagaggt tgcgcttaa gtccttggac ccttccttca 300  
tgaagcttga ggaaacactc acttttcaat caacngcatt cttggttctg cacttaatcc 360  
tgaacctgtg ttgggttggg 380

<210> 7600

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-B3

<400> 7600

cccggtcga cgggggagac tcaagcgtct aagcttgggg atgccccgga aggcaccccc 60  
tctttcttca acaagtatcg gtatgttttc ggattcgttt cgttcatgca ttatgtgcaa 120  
gtcttggagc gtcttttgca tttagttttc acttttcttt tatgcaccat gccggtatga 180  
gatagtcttt ggttgattta tagaatgctc attgcacctc acttaaatta tttgagttag 240  
ggcttaaaaa atggctcaag ttctcaatt aaaacatttg aaatttggat tgctgttttc 300  
ccttcacata gaaaacggcc atttgtagaa tgcccttttt cttcacttat atttgttaga 360  
gcgtgggcat atcttttgta gaaataatta aactctcttg cttcacttat atccaattag 420  
agagatgac 429

<210> 7601

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-B4

<400> 7601

ggtgtcgtga tatataaaca ttttgccaat gattatctgt ttacttaccc tcatcacctc 60  
 atgtagaggg aggttgaagg agcttaaact gaaggcggtc atatggattt tcacgggtgc 120  
 acttgtggga ttcacaattc ctggtttcgc ctacattggc cttggagaca catcgccagg 180  
 atacgcgggtt aacttctata acatcatacc gattgccgcc ttcacccctcg cggtcctttt 240  
 caggaaggag ccactggaca tgacgagcct ggtggggaac atcaggttca ttggaaccct 300  
 agtctgtgtt ggaggaacgc tggatgatcac ccgttacaag ggcaacgtgc tgcacctttg 360  
 gccacaaaat atcatcggtt accacccgaa gcaagcccga actgcctttg ggtaacacc 419

<210> 7602  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-B5  
 <400> 7602

cgggggagag tcagataggg ataaccgca gagacgagag tcgagtgaga ggggtggaaga 60  
 gaaggcgca tgaagctcaa cgtgaagacc ctcaaggga caagcttcga gatcgaggcg 120  
 acccccgagt cctcggtggg tgaggtcaag agaatcatcg agagtgtctca tgggcagaat 180  
 gtgtaccctg cggatcagct gatgattata tatcaaggaa aaattcccaa ggatgatacc 240  
 actctggaag ctaacaagg tgcagagaac agcttccttg ttaaaatgct gtctaagcct 300  
 aaggcgtcat catctagtgg tgcttctact gcttcaaagg cacctgctaa tcagtctcaa 360  
 cctgctactc cacctgcccc tgttgectca gctgcaagat aacaacttca caggaacctg 420  
 ttgctgcata tgaaccg 437

<210> 7603  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-C1  
 <400> 7603

ggtaccgagc tatcacgggc cgacgggggt tatagttgaa aaggatagta gtaacgatgg 60  
 gggaaacttt gatgcttttg ctaatactaa tcctcatgaa gaacctacta ttttgcacac 120

taaaaagttt cacaatggta aggggaataa taatgggaaa aggggtaatt caagaatttc 180  
ctttacttgg tgccgggtgc ttttaaccact atgggtggat ctattctcca taaaactagt 240  
agtcttgcag atgctatata tttgctcata gttgaacttg aaagacaatt tattcacatg 300  
catccttcca tacaaggaat ttttctagag ttttctaata ttgagcattc ttctgttaag 360  
cgcgagcta ccatctttct agcacatgag ttcataattta taataaaaga ggctagttaa 420  
atctttgcac at 432

<210> 7604  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-027-Q1-E1-C10

<400> 7604  
acatgctcaa gcatttcaat atggcggtct atccttggtc ggacctttga gttccttttc 60  
ggatagcggc cgcataattgc tgcgtgccat tataaccgac gcttggggat gattaaggca 120  
ctccatgata ttcaccgata atcacaagcc taagcttggg gatgccccca gaatgcatcc 180  
cctctttcgt cttcgttcat tggttaacttt acttggagct ataattttat tctccacatg 240  
atatctgttt tgcttggagc gtcttgtatt atactactca ttgctttgta ctttaccata 300  
atcatccttt gtcgtacaca tccttatggg atacagccta ctttgattat aatctgctgg 360  
aatactctat gtgcttcaat tatacttttc gaacttgata gcttttggtc caat 414

<210> 7605  
<211> 268  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-027-Q1-E1-C11

<400> 7605  
cggtgacaac aatgtgcagt tacttgaaca attaggtgcc aataatagca cattgaaagc 60  
ctcaaaattg atcttgatgt ggaaatgtca cttcttattt accatctcga gtcacagaat 120  
atgcacgttt gtgaccggac ggaatggctg cactgttttt ccaactatta tggcaactct 180  
ttggtgtcgt tcatacagct catgtttgat aaaaaataac ttggtagtgt tgcacttcct 240

gaattaaatt aatccgccta gctaaata

268

<210> 7606

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-027-Q1-E1-C4

<400> 7606

ccgggtcgac gggggatgaa tagatgcatg tggaggctgg aggaggtcga tgttgagat 60  
gaacaatatt ccatagagtc ccgttttgcg gtatgccaca cccctccoga tgaacaggac 120  
ccccgttttg accgcaatgc tccaacacat gtctgtttcc tccgttttgc ggtacgccac 180  
accctcctg atcaacaaga ccctgtttcg accgtangag gtccaacaca agtccgtttc 240  
ctcccttttg tggtagcca gaccctccc gatgaacagg atcctatttt gaccgtgccg 300  
gtcgaacaca aggtcgtttc caccgttctg cggtagcca ggcctcgttt ccatcggtg 360  
ttccgtccaa gccggttggc tccaatgaa catgacatat tctgaccag tcctttgcct 420  
cccgatgaac aggaccttg 439

<210> 7607

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-C8

<400> 7607

gtaccgaatc agaattcgcc ggccgacggg gctgctgac atcatcgggc tgtatgcatt 60  
cctctggggg aaaggggagg aaacacaaga gcagcgcaag caaagcagag aggcggcgaa 120  
cggaaacggg agcgcggcag gtagtgggct ggacagcgtg caggttggga agcacgaggt 180  
gcgaattcgc gtggaagtga gctagctaat tatacagaca catatataga cagtattggc 240  
gcagaaggca gatgaaagga gtcaaatcaa gatgaacaaa tctctgagat cagatgtata 300  
tacatatgta tgtaagtatg tcttatgcag actcttactt ttctgagata agaacaactc 360  
taatagattc gttaaaaaaa aattcatgaa caatgtgcag taaggatcaa ctggaaactt 420  
gccttaaa 428

<210> 7608  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-C9  
  
 <400> 7608

```

gggcggccgg ggaggcggcg tatcatgac aagaaccttg agaaggcgga gaaattcaac 60
gcgtcgtggc ggacagacgc gcaggggctg tgcaagaagc tcaactcaca tgtcaagggc 120
ggcgtcgggc catttgggct ctgggtgctc gcctccgacg acctcaagga aagaacagct 180
gttttcttca gggatttcaa gaacaatgac accagctatg tcgtcctcat gtgcaacgac 240
cctacaaggt cgtcattcga gtcgcagatc tacangccga ccttcgccgg cttcgtcaac 300
atcgacatta acaagaccaa gaagatcgcc ctcangacat t 341
  
```

<210> 7609  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-027-Q1-E1-D1  
  
 <400> 7609

```

tccgggtcga cctccgcgga cgagggtgcag cgcattgatgg cggagatcga caccgacggt 60
gacggcttca tcgacttcag cgagttcatc tccttctgca acgccaaccc cgggctcatg 120
aaggacgtcg ccaaggtctt ctgaatcagt tcatttcacc tcagccgtcc gatccaggag 180
ccgatccatc tacgtacggc ttcgtatatc aatttcatgc aactacctac tccggtcccg 240
atccagcctc agcttcacct gaggccggcc ctaattttgt ttgatcattt tttttgctac 300
cagtagtaac tagtgatgat cactgttcca tcattttattt attttatatc atcacaagtt 360
tcttttcttt cacaaaaaaa aaaaaaaaaa aacaaagaaa agcgacgcac agggagccag 420
ggccagc 427
  
```

<210> 7610  
 <211> 431  
 <212> DNA



tcacccttcc atcattgcta gcctcttcgg tacogtgcac tgcctttct cacctcaaga 180  
 gttggtgcaa acttcgccgg tgcacccaaa cccogtgata tgatagcta tgtcacacat 240  
 aagcctcatt atatcttctt caaaacagcc accataccta cctatcatgg catttccata 300  
 gccattccga gatataattgc catgcaactt ccatcatcat catatacatg acttgagcat 360  
 ttattgtcat attgctttgc atgacgtaa gatagctagc atgatgtttt catgacttgt 420  
 ccgttttttt gagtccatgc tacgctagat cattgcaca 459

<210> 7613  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-D9  
 <400> 7613

tccggggcga cgggatgctg accaaggagg tggtagcgcg agcaacaaag gacttcggca 60  
 gtgaaaatgt gatcggcatt ggtggctctg gcgcgattgt gtttcagggg gttctccctt 120  
 ctgggtcaag ggttgctgtc aaacgggttc aagctatgtg gccgtgctca aaggcggttc 180  
 tgagttagct tcgtgccatg cttgattgcc cacaccacc caatcttgcg cactcttg 240  
 gatggtgctc cagttagcat gaccagggtc ttgtttacga gttcatgccc aatggtaatc 300  
 ttgacagtgc actgcacaca aagggtggag caatacttcc ttgggaggca cngtttcngg 360  
 cgggtgcttg tgttgcatca acacttaa atctgcatga tgaatgtgaa caccgca 417

<210> 7614  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-E1  
 <400> 7614

gggtcgacgg gatgggcaac aaaggcgccg cgctcagcaa cgccgtctcc tactgggtct 60  
 acgtgatcgt gctggctgtg tacgtcaagg tgcgggctc ctgcaaagag acgtggacgg 120  
 ggttctccac ggaagcggtc cgcgacgtgc tcagcttctt ccggctcgcc gtcccgtcgg 180

ccctcatggg ctgcctggag atgtggctgt tcgagctcat agtgctcctg tcaggccttc 240  
 ttcccaatcc aaagctggag acttcgggtgc tgtccatcag cctcaacacc gctgccttcg 300  
 tatggatgat cccctttggc ctcggtctgt ccataagcac ccgtgtctca aacgagctcg 360  
 gagcggggcg ccccgacgct gcccggt 388

<210> 7615  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-E10  
 <400> 7615

tgacgataag aatacgaacg tgcgacgacg tgcgcctta gcaatcgcta aaccaactcc 60  
 gagaggttac tgaccacgct ggagcacgat caacctgacc acgaggggtct gtttcctgcg 120  
 agcaaacgaa gaacactcaa gaaactaaga ttgactctg gacattgcaa ctataatatg 180  
 aaagctttag tgatcacggt ggggttctgt cacatccttg tccggtcatt gaacacacac 240  
 gaagtagcca aagttgcagc tatggcgaac gtttaatcta aacaaaaccc taactcgaaa 300  
 ccacgcccta agggctctac atgtcgagga acatggggga atttcgtggc cctttggt 358

<210> 7616  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-E3  
 <400> 7616

tccgggtcga cgggaaccgt gaccgttgag tattcagaac tatttcagtt atacaatcaa 60  
 tacgcactct acaaattctat cgtcagttgc tattgtctgt aagtgatttc tttctgtagt 120  
 ttaagtcgca agctaactgt agtgatcatt ttgatcaatc attacctgta attagcctca 180  
 ctatattctt ttctgtggta ttatgcagga tgaagatgta tgaaatgaaa aaatctggac 240  
 gctatggcat tgggtccatt gagccaaata gcaataatga gtagacatgg aatattccaa 300  
 gttgtcgagc aagtttagag gaaagcatgc tagagttctt caagcgcctc aataccaatg 360  
 gagatatact acttccttac aacttcctgt gagtcacact gtcttgta 408



<210> 7617  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-027-Q1-E1-E4  
  
 <400> 7617

```

ccgggtcgac gggattcttt ttgacactta aggaaataat ctacgaatca cctctctcca 60
ggatgtttcg tcgtggtatc atggcaaccc aactcctcgc tacgtggaca atcgtttacc 120
accttcttaa gtgtggaatt gttgtccacc tagtgaacct tcgtcatccg tttctttcca 180
ccccctctga tgcgtatctc gtgtctcaac ctgagagatg gttctatggt tcattccgtg 240
agttgttcga cctttgagaa gatcgatcct tccagaatth ttttccctct cgttgtcatg 300
ttagctaaaa ttctcaaaag caggacatca agacaaagat ggtgatcaaa tcaacgttcc 360
tatgaagtgc aagttggatc gtgaagattg cgctagtgtg gttccc 406
  
```

<210> 7618  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-027-Q1-E1-E5  
  
 <400> 7618

```

attcgccggc cgacgggtgg aataaccaac gatatgttga tcttcaatga ttttatccgc 60
accagtcgc tagttgaact acccatcaag ggtaggacgt acacgtggag taacatgcaa 120
gatgaccggt tgctggtgca attagattgg tttttttcct cagtgcactg gtcttcttcc 180
tagcctaata cactgtatc gcccttgggc aagcctgctt cagatcacgt cccctgcgtc 240
attggcattg atttgtgcat cccaaaaagc aaggtgtttc attttgaaaa ctactggata 300
caacattcag ggtttcacga gatagtgcaa tgctcttgaa gccaaccttg tcatgcggtc 360
aactcagcgg ctttgatctg tagaaagcta aagatactgc gttacgcttt aaagtccctgg 420
agc 423
  
```

<210> 7619  
 <211> 418  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-027-Q1-E1-E7

<400>       7619

```
attcgccgtc cgacgagtga aagaaacacc aatcgattga tattcacgta cacatatcgt   60
gaatatataa ctgttcaaga ctgtcatccg ggatgttctt gatatatcta cttttcattg  120
tgcttagtgg ggtttatgtc actgttggtt gttctcgctg ccgctatgct atgcatctgc  180
caagcaagca acatctcaaa cttgtgttgt tataacttgt tcagatggat cttatgtata  240
ttacgttggt tcattgtgca tctcacatac aatgtgtttc attttgaaaa ctactgaata  300
caacattcac ggtttcacga gatactgcaa tgctcttcca accaaccttg tcatgcagct  360
aactcaccgg ctttaatctg tcgaactcta aatattccgc tttatgcctg aatgtcct   418
```

<210>       7620

<211>       385

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-027-Q1-E1-F12

<400>       7620

```
ccgggtcgcc gggctatatt aaatgcgaaa tggctgagta tacttggaat atctgggtgta   60
tttagttggc caatgatttt gagtagtatt atcatcatgg tatgcttcac cctgctcctg  120
gaaaattgaa cattatctcc ttgtatgcta ttgataacct ggagtgtgga ctttcctgct  180
gtgggtcata tgatttgacg tgaatcggct tcagatgaac agcagagaaa acgggactca  240
gcattctcag tgcgtgttt gcttgctagc acatcttttc tgggtccac tctacgcat  300
tgatttgtct gaccagttgg catggtttgg aggatgtaaa tatactacag aagatgcgtc  360
atgtgacaag cctgccctag tgtgt                                     385
```

<210>       7621

<211>       453

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-027-Q1-E1-F3

<400>       7621

gggtcgacat gcatgcgcaa ggggaaccag gcgacttgcc gtacgcggta ggttgccctg 60  
 cgtttactca tgagctgagg caagtccagt ggccaacac gaagaatttc aagccagacg 120  
 taccagagaa gtacgacggc aagtcgcata catcggagtt cctcagcata tacaccaccg 180  
 cggcgcaggc tgccgggggg cgggacgaca agatccttgc caactacttc ccgctggtgc 240  
 tcaagcccaa cgtcagggtcc tggctcatgc acttgccgga cgactccata tcctcctggg 300  
 cagacctatg ccattagttt gtcgggcgct ttacaggcgt ccacaaacct catggccaag 360  
 agagtgcact tcattctgct gcccagaagg aaagagagcc cctgcgcaag tacaattcag 420  
 agatcagccg tgtacagcac aacatcccag atg 453

<210> 7622  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-F5  
 <400> 7622

aattcgcggg ccgacgggag ctgaacaata agagtaaagt acccgagtt gatgcaataa 60  
 agtatattgc aatgtccgct ggggagatc aagggtgtgtg gctaggaagg ttacacagtg 120  
 atctcatgga tcgagatcca acaagtggta cttaatgttg atagcaagtc ttaatttttt 180  
 tctacgtgaa gatccagcac gccatgatag aagcaagcac attaatacgg tgtatcacta 240  
 cataaaggac tgcattgaaa aagggaagt caactacatt tacaccaatg atcagatgat 300  
 agatatgcta accaagactt tggaccgaga gaagtttttg aagatacgaa gaaggatcga 360  
 cgtccgagtt gtaatatggt gacgtggtgt ttagggggat gattgttaga atttaacacg 420  
 tagtcacaat cctggctcgg acgtaaacag gacaccg 457

<210> 7623  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-027-Q1-E1-F7  
 <400> 7623

aattcgcggg ccgacgggca agctcacacc aacgaggtta gcaagggcaa accactagat 60

tggatttcag gacaaccagt cgcagatgag catgaacgcc tccagattat aaagaatgat 120  
gacctcgaag agctccaaga actcggttct ggaacttttg gaactgtata tcatggtaaa 180  
tggaggggct ctgatgttgc aataaaaaga atcaatgaca gatgttttgc tgggaagcca 240  
tctgagcaag aaaaaaatgc ggaatgactt ctggaatgaa gcatctaacc ttgctgatct 300  
gcaccacccc aatgttgtgg ccttttacgg cgttgttcta gatgggcttg ggggatccat 360  
tgcaacgggt acagaatata tggtaaatgg ctcaattagg acggctttgc tgaagaattc 420  
aaggaccctg gatggacgca aacggctaatt tattgccat 459

<210> 7624  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-G2  
<400> 7624

cgggtcgacg gggaaatcga atggcctcca taccgatccc atgtgcagtg cctgtgagat 60  
ggctgttgtg tggatgcaga accaacttgc acagaacaag acccaggatc tcatactaga 120  
ttacgttaac cagctgtgca accgtctgcc aagccccatg ggagaatcag ctgtggactg 180  
tgccagcctt ggattcatgc ctgacattga gttcaccatt aatggcaaga agtttgcgct 240  
gaaaccagaa gagtatatcc tgaaggttgg cgaaggagct gctgcccagt gcatcagtgg 300  
attcacagcc atggacatcc cgctcctcg cggctccttc tggatcctgn gagacgtttt 360  
catgggcccc taac 374

<210> 7625  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-027-Q1-E1-G4  
<400> 7625

gggtcgacgg gaataagagc aagtgcagtg gaaaagttac tctaagacta ctgctgaatc 60  
aaatattcaa caatagtctc gaggactaca cctagtgtgt gccttagcgt gccccactg 120  
gttcagatca gtactcagca gggatatgcc agcgtgagtc caaaaaagag agagaaagag 180

agtacattct aagacctcac actactagga aaaggcctac taatggcgca cgggttttgc 240  
 ctactaatgg cgcactaccg gtgcgccatt agtagcacgc cactagtatt ttttactaat 300  
 ggcgcaacac cggggcgcca ttagtatctg atatactaataat ggcgccaccac gaagtgcgct 360  
 attagtatgt aagaacatgc gccattagta tgcctcccgg gggggccata cgtaaccatg 420  
 tgctttgtca tactaatggc tcactctgtg gtgatgcg 458

<210> 7626  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-G6

<400> 7626

ccggtccagc tagcattggc cggtcgacgg gtggataaat aacaatatcc gagaatgttt 60  
 ttgccgaatc cctaaagggtg ttcggcggtg cactgcgaga cttctgttga aaatacacaa 120  
 atagtttgaa agtgccatgg gctcgaaaag cgaaaaaact tattcaaaat gttaatgtcc 180  
 gaactagatc aagtgttcgg tgccaatccg aaaattggac tttagaaaaa aagggtgcttc 240  
 tgccgtgctt taacatgaca catcctatct caaaacttca agcgggtcag cctacagctt 300  
 caacctccta tcccgaaagc agagtacttc ttactaggcc cgtttagcaa actacactct 360  
 atcggctttg agagagaaat taagctccac cgctagcgac cgcacacttg tgtcaaaaaa 420  
 aaggattggc aaatactact aacaactttg cagcgactac taagaaaaac acttatcat 479

<210> 7627  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-G8

<400> 7627

gccggccgat tgggtcacca acaatatcaa tacctcatgt atcttcgcat tattcagatt 60  
 gctttaccat attcttgccg gttcttaggt tatttggaac gaagacacct tcgaggccag 120  
 gttgatcgtg ctcgagcgtg gtcaataacc tcacggactt agtttatcca ttgccacagc 180  
 gcaagctcgt gcaagtttgt actccgatct ccaaagtcgt ttccaacagg tcgatagtta 240

tcatctcagt gaaagatcgg gacacgctct cctctagtaa gtgagatcag ttttcaagat 300  
gctcagtaag aatttctagt tctcatagat gagatgtata ttcttaccta 350

<210> 7628  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-027-Q1-E1-H10

<400> 7628

tgtgttgtga agttttcaag ttttgggtaa agatttgatg gattatggaa caaggattgg 60  
caagagccta agcttgggga ttaccaaggc accccaaggt aaaattcaag gacatccaaa 120  
agcctaagct tggggatgcc cccggaagga tcccctcctt cttcttcgtc catcggtaac 180  
tttacttgga gctatatttt tattcaccac atgatatgtg tttttcttgg agcgtcntgt 240  
antatttgag tctttgcttt ttagtttacc acaatcatcc ttgttgtaca caccttttga 300  
gagagacaca catgattcgg aatttgttgg aatactctat gtgcttcgct tatatctttt 360  
gagct 365

<210> 7629  
<211> 377  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-H12

<400> 7629

gacgcggacg atcacaaatt catgaacttt ctttccatcc ttggttaact aactcgaccc 60  
atgtatcctg gcgatacccc ctagctggag ataagctacc agttgctcct tgaaagcgaa 120  
cgatgaaaga ctgcacatga cacatagatt gagttttgtc cacggatgtc atctcccccc 180  
tgccctgccc ttatcttgcc gtccccaagc caacagatgc atgtgcgttc agctgacgcg 240  
gatccgttgt tgatgagacg tttattacca ccgaaaaatt acgattcctt aagacgaaga 300  
tattggcaga attcgaaaag gagaatgaat ggcgactgtc aagtcaggta tggaaacgtg 360  
cactggtgcg agctaaa 377

<210> 7630  
 <211> 189  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-027-Q1-E1-H2  
  
 <400> 7630  
  
 gttctgaaac cagggatgcg caaggaagct gacgagcgaa ccgggagcag cccagcttga 60  
 gaatcgggcg gctgtgccgt ccgaattgta gtctggaaaa gcgtcctcag cgaccgaccg 120  
 ggcccaagtc ccctggaaag gggcgcttg gaaggtgaga accccgttcg gcccggaccc 180  
 tgtcgcccc 189

<210> 7631  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-H4  
  
 <400> 7631  
  
 tcggccgaga gtgctattaa atattttaaa aacaaaaaaaa taaagagggg aacctaatac 60  
 ttttcaaaaa ggaaagtga agttataaag acaagcattg ttgaagtga agagctcctt 120  
 gaactttgtt catgctcacg ggaactctgt gaatcttgat ttacaaaaaa tttcaaacia 180  
 aaataattat ccctttggtc aattccaacc tattaataaaa ataatgggtgc aaaggttggc 240  
 ttttaaggagt ttaaaatgct tgggtggttg tacgggtgcaa ggcaaaaacc ttgggtgtaa 300  
 tgccccaatt taaaatttta actggaaagg caaacgggtc cgattccttt tgcactgtct 360  
 ttctgtacaa agtttcta at tttcccaagt tttggttaaa tttttggggt accataagta 420  
 ngtttaatgt tcagatttct acagactggt ctgtttttg 459

<210> 7632  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-027-Q1-E1-H6

<400> 7632

cgaggaggaag aagctgcagc ctgcaggagc ttgacttact acctagactc tgtaactttc 60

gggtactcgta gccgtctgtt ttactttttt tttttacacg gagaggtgct catctttttt 120

cgctgctgta tgcatgggta gctgtcagtg gcatgttgca gaaaaggaag gcgactgaat 180

tacatactgt aagtagaagt agcagtggtat gggaggtccc gttgggagta gggagcacag 240

ccaagttgac agtgttggtt atttcgacgt gtaaacttgc tagtactaag ctgcttaatt 300

acagtagctc attatgaaga ggaattgagc gaaaaacaan aaagaaaagg aaaaaaaaaa 360

agcggccgct ct 372

<210> 7633

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-027-Q1-E1-H8

<400> 7633

gggcaatggc aaagttgagt gtagaaatcg taccctaac gtatcactta gtogtctgtaa 60

gatcctgcaa catgagacgt tgcagccaca aagggtcagt acattgaatg tactggcaaa 120

ttcacaccaa agagcaatga tgaataaagg ctatcactac atgcatatat ggctgggtgga 180

aagctctatg gttacagttt ttgcaaaaag ccaatttttc cctactacaa aggaataaat 240

tttacttact atcattgtgg ttgtttaaca atgagaatgg ttgacactat tctcaatccc 300

aatttaacat catcattaaa acccaacaaa atttattata agtaacatga ttagattaac 360

atgataatc 369

<210> 7634

<211> 281

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-A11

<400> 7634

ccgtgttaat ccaaggatgg atgcttgacc caactgtggt tgtgtgtcat tatggtcctt 60

atgtcaagct gttaattgtc gtgatttgcc gggttggaact ctacatgttt gccaatatac 120



ctgtgcagcg ggtgcaactt tggcacagtg aactattact tactttgtga aaacaaaaac 180  
gataaaaggg aatacacagt gcgggtcccg cgctcggatg gatgcttacg taggtatgca 240  
tgcaacctca gtgatattcc atcgagggac ccacttacat t 281

<210> 7635  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-028-Q1-E1-A12  
<400> 7635

attcgcgggc agacgggaac ggcacatgc aagtctgatc gattcgaagc aggttgagtt 60  
cagttcagct agaggaagac gaaggcggtt cgatcagtc gatctcctgc tccttttaca 120  
tgatgattac tattatctta atcttagtgc atgtgtatgt aatatgcacc atgaattggc 180  
agtgcagtgc agtgcagcac agcacatctc tgaacctggg aaggtactac tagctttctt 240  
ttcaactcaga caagtcggga gggggtttct tgtcagttag tcggtttctg gcttgtcagt 300  
agctgtggcg cgtgtcgtgt ggatcgagtt agttgtacta ccagaaattc ggaatgacan 360  
tggaaccatg catagcanan nnaannnnnn nnnnnnnaaa aaaaaagccg gcggc 415

<210> 7636  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-028-Q1-E1-A2  
<400> 7636

tacgggtctag tattccgggc cgccgggcat gctaaaaagt ggtatttatt cataatttgg 60  
ttgccaaatc tcatgcgtgc aatgcacgtg taccttactc tagtctaaat ggtgtttctg 120  
tgcttagttc tgctgagctg tacaactctg aaactaaaag ttggattaca cttccaagca 180  
tgaacaagcg tcggagaatg tgttctggag tcttcatgga tggcaagttt tatgttattg 240  
gtggaatggc cagtaacacg gaggtgctga catgcggtga agagtatgat ttagagaagg 300  
gcacctggag gttgatagag aacatgtccg aggggctcaa tggtgccagt ggtgctcctc 360  
gccttggtgc tgtaattgac aatgaactat atg 393

<210> 7637  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-A3  
  
 <400> 7637

ggccatcaa gaagagcagt aatataaagc ttttgagctt aagcacatga atcaagcccc 60  
 cagaatccga tggccactg agccagtttt aagttggcga ggaatggtgg agcactgaac 120  
 cttgccacac aacggcaccc ccttcgcctg atgacctttt ccgatcacga tgacctcctg 180  
 tcgctgctga acgaattggg aacagtactg gaggaattgt gatctatgtc aagggatgatg 240  
 atgtctatgg aaatgattgt tgagtgttat gatacatatg gtgatgaatg gtgacgaatc 300  
 taatgtcttt cgtcaagaca tgcaacaaag tgaagttatg aagttctggt caatttagct 360  
 tatgcataat gct 373

<210> 7638  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-A4  
  
 <400> 7638

tcccgggtgc acgggtacga caaaatatga tgataattga atttgttccg ccgaaaaaac 60  
 aaaacctttg aaccattaa aaaaaatta aggaaccac aggaacgata ttttgcattg 120  
 attcttagtg caggatgaca atacagcaaa tttcatagga catcatatth tggtacgatt 180  
 tttgaagttc cagaagttag cgttaggtac atattgctat aactgtact gtttttgaca 240  
 gattctggct ttcgtgtgtt gtatgcttag tttgatgcac ctatggctac tatgtaaggg 300  
 tatgaacat agacaacttg gaatacagta tgtttaacac caagttaa atacagattgag 360  
 ttcattacag taccttacgt tgtggttttg taatctttca ct 402

<210> 7639  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-A5

<400> 7639

ctgctgataa acagaaactt tgtgctgctg aatttagttt tgtaaataca cagaactttt 60  
tcattgattc gtttttcttc tgatcaatat acaaatttta caggacttcc tattttggta 120  
ggatttttag agttccagaa gtttgcgtta gttatagatt tctacagatt gttctgtttt 180  
tgacagattc tgtttttcgt gtgttggttg cttaacttga tgcatttatg gctagtaaaa 240  
tagtttataa accatagaga aattgggata cagttgggtt aacaccaaaa taaatacaca 300  
atgagttcat tacagtacca tatgtggtgg ttttgttttc tttcactaac ggagc 355

<210> 7640

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-A6

<400> 7640

attcccggcc cgacggggtt gctataatca aagacgcatt gcccctaatg cctctagaaa 60  
gatccgaagt aattcgagct gtaattgtac gtacatgtaa agagttcaaa tgccaagacg 120  
gtataataat ccgctatgat gacaatgctg cgggtataat tgatcaaaaa ggcaatccaa 180  
aaggaactcg agtttttggc gcgattgccg aggaattgag aggattgaat tttaccaaaa 240  
tagtttcatt agctcctgaa gtattataaa tactagtagg cgaaattgag atcaaagaat 300  
taatttagta gattgtgttt tacgtatatg ttttaaaatc caaatgaaa aaaaaaaaaa 360  
aagaaaacat gttgattata gaaaaat 387

<210> 7641

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-A7

<400> 7641

attcgcgggc cgacgggcag aacatcctag atacatttac aaagcttttag ttaacatgca 60  
tgaactattg tctcgttcat ataaaaagat caatgtacga gccacgtaga caccgacatg 120

acaaaactaa aaagacatta gaacatcagc cttttgcaca aaggattatc agccaagaaa 180  
gaagattaca atcaggaccg actacatcct agagcttgag tcaaaacgca catcacttgc 240  
ctccggcaac atcacagcaa ccaccaaaga aaaaaataat ggatcacctt ttcacccaag 300  
ctcaatgtgg ctccaacgct aatatgcaat ttttcagtcc tccaaaatag cttaccaaatt 360  
gatgggtgtcc cggttgaggg gcctctcacc atgtcgaatc ctggcctggg tgggccaacc 420  
tgaggacccc ttgtcgggtt cgacttgggc ca 452

<210> 7642  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-028-Q1-E1-A8  
<400> 7642

acgggcatgc cagcctagat acatttacga agctttagtt accatgcatg tactattgtc 60  
tcgttcatat aaatggatca atgtacgagc cacgtagaca ccgacatggc ataactaacg 120  
ggacattaga acatcagcct tttgcacaga ggattatcag ccaagaaaga ggattacaat 180  
caggacggac tacatcctag agcttgagtc agaacgcaca tcacttgcct ccggcaacat 240  
cacacgaacg accacagaat aaaataatgg atcacctttt caccagagc tcaatgtggc 300  
tccaacgcta atatgcaatt tttcagtcct ccaaaatatc ttaccaaattg atgggtgtccc 360  
ggctgagggg cctctcacca tgtcgaatc 389

<210> 7643  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-028-Q1-E1-B1  
<400> 7643

gggtacatca catgtccaat attgaattgg ccgatgggtg cggcatccgt ggacaccgta 60  
tccttcatga aggtccgctc gtgggtgcct tactcctttg aattgtccg ggtgaaaact 120  
caatctttgg gatcggatgg tggcggctat cagtggctcg ttggcaccat cttggagtcc 180  
ttgttccgctc gttttccgctc tcacctctcc tcggaggatt ggaggactcc gttggctcca 240

agcggatcat cctcgcgtat gtgtagtggc tttgtagtca ttgggggtggg gtggcggtgc 300  
 tcggcaccct tgtatcttgc cttgagtgtg tgtgtcgtgt gtgggtgggtgg cgtgagtttg 360  
 tatcgtcgtg atgctttgtg attggtgcct t 391

<210> 7644  
 <211> 284  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-B10  
 <400> 7644

acggtgttaa caattgtgag tctgcattgt tgtatcgcga cctcaatgaa tggaataaac 60  
 gaaataacgc tgttgttcaa tcatcaggct ccggttcagt actgcaccaa gctgtgattt 120  
 ttgcctatct tgaaaataag cacatgctgc tgtgtttatt taaacaccat gaagcgcata 180  
 catgaaagaa ggcattgacat ataaaaagat taagcatcaa caaaaacgag gccgctctta 240  
 aggatcaagc cttccttttag cgtcaatacg acgtcatacc tctt 284

<210> 7645  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-B11  
 <400> 7645

aattccccggg ccgacgggac gtatacaacg tatctatagt ttttgattgt tccatgctat 60  
 tatattatct attttggatg ttaatgggct ttattttaca cttttatatt atttttggga 120  
 ctaacctatt aaccggaggc ccagcccaaa ttgctgtttt ttgccaattt tagagtttcg 180  
 ccgaaaagga atatcaaacg gagtccaaat ggaatgaaac cttcgggagc gttatTTTTg 240  
 gaacaaacgt gatccaggag acttggagtg gacgtcaaga aacaatcgag gaggccacga 300  
 ggcagggggc gcgccctcca ccctcgtggg cccctcattg ctccaccgac ctacttattc 360  
 ctccatata tgtccatata ccccgcaaac atcca 395

<210> 7646  
 <211> 213

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-B12  
  
 <400> 7646  
  
 acgggaccaa taatacttat ctataat tttt tgattgttcc atgctattat attatctatt 60  
 ttggttggtta aggggctcta ctttacagtt ttatattatt tttgggacta acctaataata 120  
 cggccgcca gcacaaattg ctgttttttg ctacttttag agtttcgcca aaatggaatc 180  
 tcaatacggga actcgatatg gcacaacacc ttc 213

<210> 7647  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-B2  
  
 <400> 7647  
  
 tacgggtctat gattccgggg ccacttccac caaaacaaaa tccaccatct catcgaaaga 60  
 cgggacacct ttgcctctat caagtgggtat cagatttcca ggttgctcgg tgagatttta 120  
 cagttttttg tagtttagat cgagtctggt cttcatacct acagtccacg aaaaagccac 180  
 aaaaaaaaaat tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt 240  
 ttaggggtttt gctttgttga atttgcgggt gcacgtcgt gtctagttgc tgggtcttaga 300  
 gtctagttctt ttagagtttc gagttctggt cataagttgt caccgcccgc ccgcaccatc 360  
 atcatcacc ctgccatcta ccaccaccgc ttatccgcca ccgcttcgaa tccgtatcca 420  
 ta 422

<210> 7648  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-028-Q1-E1-B3  
  
 <400> 7648  
  
 tcccggggcgc ccggggaatc taatatcttg cacactaaat aacttatcat aggtagcggc 60  
 aaatattatt ggaaaagggg ttattcaaga tttatttact tgtgccggtg tgttacccat 120

gttaggtgga tctattctcc ataaaactag tagtcttggtg gatgctatat ctttgcccggt 180  
 agttgaactt gaaaggcaat ttgttcatat gcatccatcc atacaaagga tttttctaga 240  
 gtttcccaat attgagcatt attctattaa gcgcgccgcc actatatttc tagcaaatga 300  
 gtttagattt attatgaaag aagctagtga aattttcgcg cattataaag tagatggtgg 360  
 tcatcctcct atagaag 377

<210> 7649  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-B4

<400> 7649  
 tacggtctta gnattcccggt gtccacgggg ccctcgacat ctccatcgag aggctccagg 60  
 agattcagga cgagctcgag aagggttaatg aagaagcaag tgataagggtt ttggagggttg 120  
 agcagaagta cagtgaagatt cgcagacctg tctatcttcg gaggtgtgac atcatcaaaa 180  
 caattccaga cttttggctg acagcggttc taagtcatcc tcttctcagt gagcttttga 240  
 ctgaagagga tcaaaagatg ttcaagtact tggaatctgt tgatgttgat gattctaaag 300  
 atgtcaagtc aggctactcc atcactctta acttctctga gaatccgtac tttgaagaca 360  
 gaaagcttac caagtcatat gcctttgctg atgatggaac aaccacaata aatgc 415

<210> 7650  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-B8

<400> 7650  
 attccggggcg tcgacgggag aaaggatgaa atgttagatg gctgtgacag tgaagggtgca 60  
 agctctgtgg gtgaagacaa cagcaagcag cgggggttcca acgaggatgg ctgggaactg 120  
 tgctgaactg aagatggctg aagatcgta gggtttgctt gagtttgctc catataaata 180  
 aataaaaatg gcggtaataa tcatttagaa ccgtctctat tttgtgag caaaattagt 240

gaacttgccg gacttgatcat ggaatagctt tgcccttttgg gaggcgactg aatatcagta 300  
 agttaaaatg gtgctgacat gatagtata taccgagatt ctagcttaat ctatagtata 360  
 aataaatgat tgggtgccatg tcaatgccaa ttttattgcc acacanaaaa accnaaccaa 420  
 aggaaaaacc aaaatcaacc ccaaacaa 448

<210> 7651  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-C2  
 <400> 7651

cccggtcca cgggagccac aacatctccg atgacggtga gctgggtggca cgtcacaaca 60  
 acggccgtgg aggcgtgcgg tgacgttggg tgaaggcgtc caaggcaaca acgacgacct 120  
 gtcagggcag gcaagccgca cggcgagttc atggcttaga aggtgagtgt tggaataagc 180  
 cacgccccac gtcctatgat ccggccggtg cgtgcatgct gatcaagcca gtccgggtggt 240  
 ccgcagtcgt ggcgaagtgt agcgtgtgtg cacgctcgaa tggggcgcat ggccgggtgt 300  
 gttgttagtg tatggcgtga gtctgttgta attttgcccg agtcgctagg acgtg 355

<210> 7652  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-C3  
 <400> 7652

tccgggcnca cggggctcta tatacttcac ttatatcttt tgagcttgat agtttttgct 60  
 ctagtgtctc acttatatct tttagagcac ggtggtctct taattttgaa gaaattgcta 120  
 gtctctcatg cttcacttat atatttttag agtccttttag aatagcatgg tacttgctgt 180  
 ggttacaaag ttggctcctag aatgatgagc atccaagttg ggtataataa aaactatcat 240  
 agaaaaagaa ttggatgtta tgatcaatat gatgcttgat aattgttttg agatatggag 300  
 gtagtgatat taaattcatg ctagttgagg tgattatgaa aagtacttgt gttgaggggt 360



gtgattcccc tagcatgcac gtaggtgaa ccgctttgtg at

402

<210> 7653

<211> 331

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-C7

<400> 7653

acggggcctt cagtctgtc atgcattctt ctgatatgat cttctcgtct ttggtcacaa 60  
catagctgtc actacctga cacaattccg gttgacggtc atcatggatc taagcgattg 120  
gtggccatga aatctgatgt ctgcgtgggt gtagatgtcg ctctatatgt ttaactttta 180  
tggtcctgta agtctacgtc ataactcttc tatgatgtct gctacgttta ttccattggg 240  
cttcgttttt taacttcgtg atgggtgatgt ccctgtcttt atccaactta ttcacctttg 300  
atgcacattt ttttttctcc aactggcgta c 331

<210> 7654

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-C8

<400> 7654

gacgggcacg gcaggcgcgc ctggcgcgac gtacaccgac atgatgaagt cggcggcgga 60  
gggcaccagg gactacggca agacgctggc gagcacggtg tacgacatga tcaagtcgcg 120  
ggtggcgggc gccacggact acggcaagaa gctagcgagc accgtgtact ataaggtcgc 180  
cggcgtcggc acggccgttg cgagcaaggc ccagaatgtg acgacatcgg ccggcactga 240  
ggtgctttac ggcgcggtc caacgataaa cactaatgtg ttgtgaactg cgccgggggc 300  
gatcgtggga tcgctggaga aagtcgcctg cttggtggtt ggggttcactt ggggcttcac 360  
acggttctac acgtgtt 377

<210> 7655

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-C9

<400> 7655

gccgacgggg aatccataaa gaaggaggca aagaggaaga aggaagagat ggacgaaaga 60  
aagagaaagt acaatgtgaa gtggaatgac gaggtcactg cggaagacat ggaggcctac 120  
cgtatgacaa gagtccgcca cgacgattct aagaaagatt ttccaatta agcgttcaag 180  
tcccctgtgg ttgcttgccc tatgcctgaa ccctttctgc tgcgtgtcaa ccctttgccg 240  
gattgttgtc tctgtactct ctgggtgtct aggaacacgg gatgggatgg catgccagct 300  
cgtgagttac tgatgttgtg agtacagat atgatcgctt gatgtccaaa ggcagaacga 360  
agtttgttct catatgtcct ttgaaacctc cttcctggta accatggcat acgccactca 420  
tatggatat 429

<210> 7656

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-D1

<400> 7656

tccggggcca cgggggagaa tctcgccgc cgctgacgc caccgtcgtc gcgtccggcg 60  
ctccgtggaa agaagagaaa acccaccgtc agccatggcg aactcggcgt cgggcatggc 120  
cgtgagcgac gagtgaagc tcaggttcca ggagctcaag gcgaagcgaa ccttccgggtt 180  
catcacgttc aagatcaacg agcagtcgca gcaggtggtg gtggaccggg tggggcaacc 240  
gggagagacc tacgccgact tcaccgccac catccccgcc gacgagtgcc gctacgccgt 300  
cttcgacttt gacttcgtca ccgacgagaa ctgccagaag agcaagatct tcttcatctc 360  
ctgggtccccg gacacgtcca gggtagaggag caagatgctg 400

<210> 7657

<211> 184

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-D10

<400> 7657

taccgatcta gaattcgccg gtcgacgggc tcacacataa aaaaaaaaaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaagaagaaa ataataaaaa ataaaaataa atgcgggacgc 120  
 acaaaagggtt cgatcctcac gttcgcgttc aagttacggc tcatcgcttc gttactgctc 180  
 ccca 184

<210> 7658  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-028-Q1-E1-D2  
 <400> 7658

ggtctaggat tccgggceca cgggcctggc tatctctctg gaggaccggc gccatggcgg 60  
 cggcggcgct ggcgcaggga actcctcggg cgattcgccg ctgctcctgc tgccgatgct 120  
 ggacgacgac atctcccgtg aggtccagcg cctagatgct gatatggacc gattcatcag 180  
 ggcccagagt gagcgcatga ggcagtctat attggagaaa gttcaggcaa agcagtttga 240  
 agcgctggcc tctgttgaag acaagatcct ccgaaaaata cgcgataaag agtcagaagt 300  
 gcagaacatc aacaaaagga acctggaact cgaggaccag attaaacaaa tggcagggga 360  
 agttggtgcy tggcagcaac gagctaagta caacgagagc atgatcagcg cact 414

<210> 7659  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-028-Q1-E1-D3  
 <400> 7659

taccggtctt atattcccgg gccacgggg atgaaaatag cggagctcan atccgaagaa 60  
 aaactagaca agatgcagca caacgacgat gataatgtcg actgcggcgt tggctctcgga 120  
 tgtgtacaga ataattcctc gctatcaggt ggtaataacg caccggaacg gacgctgttc 180  
 ttgatgcgcy gaatggcaag gcaaagcatt ctttcaccga gcaatggtga ttgacgactt 240  
 gattacagac aagatagatt tggcacattc ttacctgtaa agataatttg ccaaataaag 300  
 ccgtttataa gctttgccac tttgataatc tcttgtactg acacaatttg aaagaattcc 360

tttgagaaca aanaattaaa aaaaaaaaaa aaaaaaaaag cggccgctc

409

<210> 7660

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-D4

<400> 7660

taccggtcta tgattcccgg gtccacggga gggtaagaaa aaagatgtca tgcaagttct 60  
ttccataagc acgtatgact atttacggaa tacatgccta cattatatcg acgaactgga 120  
gctagtgcc a tatcgcccta ggttataacc gtctcatgat gaatatcatc caacaagtca 180  
ccgatccaat gcctacgaat ttatcttata ttgttcttgc taagttacta ctactatcat 240  
cactgttaca cttcctaaaa aactgttgct atcattgtta ccgtttcctt tactgctact 300  
actattatca aaactatcat attactttgc tactgatcac gttgctgcag ataattaatc 360  
tccaggtgtg gttgaattga caacttagct gctaatacct tcaaatatte tttggctccc 420  
cttg 424

<210> 7661

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-D7

<400> 7661

acggggtaca aaaacctgct cgacggggagc ttaatcttcc atctgctaata gaattgatta 60  
gttcgcagtc aaacaatgtg gcaaatggca atctggaaaa cacacacgaa gtgcagggtga 120  
accgaatgag cttatctcaa tacagggaca tccatagaaa gattgttgag tttatcagaa 180  
agagatacca tattctggaa aactgcttgg acattgaata tgccgtgata aaaacatata 240  
ctcctgttcc tgatgatctt actgaacaaa atgttcctat gggacatagc ccagctgttc 300  
cagatatcag tgaagtgttg agagaacttc cccctcttgt accaatttct gccatagaag 360  
tggtttctga tggctcaact gaccaagcac aactttccca acc 403

<210> 7662  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-E1

<400> 7662

cggtcttata ttcccggttc cacgggatca taaaaatcat catagcaatc atccttcggt 60  
 aagcacgaag gggaattaaa caatgtatga gttgaagagt tactctcatt agaaggtggg 120  
 cacgggtgat caatccgctc ttccttcttt tgttcttcgc tctcctcctc atctttttca 180  
 tccaatgagc tcacagtttc atcaacttct tcttccatag acttctgcaa aatattagtc 240  
 tcttcttggg cagcggggta atcctcagta tatagttcaa cataggcatt agaagcataa 300  
 ttatcatagc aatattttaag tatggcaa atttcagact tgtaaagagt agcatcatac 360  
 gtttcaatca aagaagcaat ttcataagca cccttaaaag caacaaattc ctca 414

<210> 7663  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-E4

<400> 7663

ttcccgggcc cacggggatc gccacatcgc actctcctct cctgcccccc ggcacttcca 60  
 gaacctcgat cgatcgtagc tcgtgttccc tctccttttc gcggcgatgg cgggtggatct 120  
 gaccccgagg cagccggcga aggcgtacgg cggcgaaggc ggtgcctact acgagtggag 180  
 cccagccgag ctgcccattg tcggtgtcgc ctccatcggc gcagccaagc tctcgctcgc 240  
 cgccggctgc atgtccctcc ccagctactc cgactccgca aaggctgcct acgtcctcca 300  
 aggcaaggga acctgcggca tcgtcctgcc tgaggccacc aaggagaagg tagtcgccgt 360  
 caaggagggc gacgctctgg cgctcccgtt cggcgtgggc acctggtggc acaacaaccc 420  
 gggggtcggc aacggagctc gtcgtcctct 450

<210> 7664  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-028-Q1-E1-F10

<400> 7664

taccgagcta gaattcgcg gccgacgggg cagctcatcg gcaagacgcc catggtgtat 60  
ctcaacaaga ttgtcaaggg ctgtgtcgcc aacgtcgccg ccaagcttga gattatggag 120  
ccctgctgta gtgtcaagga caggatagga atcagtatga tttccgacgc tgaagagaag 180  
ggcttgataa cacccggaag gagtgttttg gtggaagcaa caagtggaaa cacaggaatt 240  
ggtcttgctt tcattgctgc ttccagggga tataagttga tactgacaat gccacatca 300  
atgagcatgg agaggagagt cctactcaag gcttttggcg ctgaacttgt gctcacagat 360  
gctgcaaaag ggatgaaagg ggccttagat aaagctacag agatcttgaa tangacaacc 420  
aattccatac atgcttgagc agtttgacaa ccctg 455

<210> 7665  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-F2

<400> 7665

tacgggtctat gttccccgggt ccacattcgc ctgcaagaaa gcaacgagcg cgctttccta 60  
tttgggggtca agagtggcgc tgatgggtgaa ggtaccacca gtgccatcct ccttggcgga 120  
caccttctta gtctcaggtg gagctgccat tgccttctta cacttgccga tggagctcga 180  
tggcgcgtcc tcgacgggtg cgcggcactc cgaggaggtg cgcttgccgg agtaggcac 240  
agagctcttg ccggacttgg tctttttctt caccocggga gcttcagcgg caagtgtcct 300  
ccgtttctgct gcaggtgctg cttcccggtg gatcttgcg gcacaaataa gagcatcctt 360  
cttgtcgcca gggacagaga tgacacttat tgggcctggc attttcagta cgttgtacac 420  
at 422

<210> 7666  
<211> 423  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-028-Q1-E1-F3

<400> 7666

cggtcctagt attcccgggt ccacgggcac ttgtaacaac ctgngagttt cccctttttt 60  
ttccttcata atttcggttt ttcaaatgt ttaatctctt gagccatgtg tccaaatact 120  
gaaccgtttt cattgttaga tttatcacct tgagatattc gaaactggat cccaagttaa 180  
tagatttcca tgatattgtt tccatagaaa agttgaaaat aaaaaaatc caaaagagtg 240  
aatacccaaa aaacaaaatc caaaaaggc caaaaattgg ttcattgcaa aaaaatgatg 300  
aatactgaaa aaagaaggaa aatattgaat catggaagaa cggtttgcag ttttgcactt 360  
tttttgaag cacatgatgt gcttttccta tttttgaaga agcataatta aatttgtgct 420  
ttt 423

<210> 7667  
<211> 292  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-G10

<400> 7667

acggggataa caatctgcag acggatgtag tgattgtgta tgataacaag caatatgac 60  
ctattgcgat gcatgctgct gatagctcat ctacacttgg tcgacactct ttgtctggga 120  
gttactggta tatcgagaat gcttgctcta aatgatggat atggtaaga ggaagggatt 180  
gacgaggctc tcaaagtaca tagctagtga ttaccatcag catccaacgg aatgatagtc 240  
cttcgttaac accgatgagg ttcattcaatg aatggtatat gtacgcatct tg 292

<210> 7668  
<211> 401  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-G4

<400> 7668

cgggtgcccc ggacagggca caaaatacct gcagcacgag aatttcatgg aatgagcagt 60  
cagttagtca aggcaatgcc gagtcttatt ttacaaaag tccaggaaga caattgtact 120

tcgtcaacat gtgccatttg cttggaagac tacagtgttg gtgaaaagat aagggtgctg 180  
ccttgctgtc acaagttcca tgctgcttgc gtggacctgt ggctcacatc atggaggaca 240  
ttctgccctg tatgcaagcg agatgcaa at gctggaatgt caaatttccc tccatcagag 300  
tctacccctt tgcccttctt tgctattccc ttgccagctg aatcgacagc tttgtcttct 360  
tttcgttcaa tggtagcagc atctcctcca aggacaataa g 401

<210> 7669  
<211> 405  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-G8

<400> 7669

gacggggagg ataagctgcg caatgctgta ttgcttgttt ttgctaacaa gcaagatctt 60  
cccaatgccca tgaatgctgc tgaaataaca gataagcttg gtctacactc tttgcgtcag 120  
cgacactggg atatccagag tgcttgcgcc acaagtggag agggctctata tgaagggttg 180  
gactggctct ccaacaacat agccagcaag tcctgaaggc ttccaatgga ttggcagggc 240  
cgcagaagca actagcggct ggacaaatga ctggaatatg taggcatgtt aaaatgctgc 300  
cagagtgttg acatgtcttt gtaagctcga tctttgagct gttatcacac tgctactatg 360  
ttgtatcaat gattgaatgt acacacgatg aaacccttta tgctg 405

<210> 7670  
<211> 356  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-G9

<400> 7670

acggggagga taagctgcg atgctgtat tgcttgtttt tgctaacaag cagcatcttc 60  
ccaatgccat caatgctgct gacatatcag ttaagcttgg tctacactct ttgcgtcagc 120  
gacactggta tatccagagt gcttgcgcta caagtggaca gggcttagat gaagggttgg 180  
actggctctc caacaacata tccagcaagt cctgatcgct tcgaatggat tggcatggcc 240  
gcagaagcaa ctagcggatg gacaaatgac tggaatatgt acgcatgtta aaatgctgcc 300



agagtgttga catgtctttg taatctcgat ctttgagctg ttatcacact gctact 356

<210> 7671

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H10

<400> 7671

gccgacatgg gcgacatgct gatgatggac aggttccgctc aatggcaggc cacgcacaac 60  
 cggtcgtacc tgagcgcgga ggagaggctg cgtcgcttcc ggggtgtaccg cgacaacgtg 120  
 gagtacatcg acgccaccaa ccggcgcggc gacctcacct acgagctcgg cgagaatgag 180  
 ttgcgccgacc tcaccagga ggagttccta gccaggtagc cgtcgctccta cgatggggtc 240  
 ggtgatgata ctggcatcac gttgcctgtg ggcgggtggcg acgccgagct gtggtcgtcc 300  
 ggccggcgaca atgatagctc cttggaggct ccgcctccca gctgggactg gagatccaag 360  
 ggccgcgtca caccggtcaa gtcccaaagc gcaggatgcy ctacctgctg ggcgttcgtg 420  
 acggttgcca cgat 434

<210> 7672

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H12

<400> 7672

gaggataaac tatgatgata gttgatttga ttctgctaaa aaaacagaaa ctttgcacgc 60  
 acaaataataa ttttggttaa tcacaggaac gcgattttgt gttgattcat tttgctgata 120  
 atcaataaac aaattttcca gaacttccta ttttggtagg attttttagag ttccagaagt 180  
 ttgcgtagt tacagattgc tacagactgt tctgttttta acagagtctg tttttcaagt 240  
 gttgtttgct tatttcgatg catctacggc tagtaaaata gtttataaac catagagaag 300  
 ttggattaaa gtaggtttta caccaaaata aataaagaat tagttcatta cagtacctta 360  
 tgtggtggtt ttgttttcct 380

<210> 7673  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H2

<400> 7673

```

tgatcataaa gcgcaacgaa gaagcacatt aaaaaactg ggcaccgttg cagcgtaaca   60
aaataatact gaaccgagac cacttccaag ctagttcaag aaagggttagc cttgcgcggg  120
aactgctgcg caagctgctg agcaaggctg tgagaccggc ctagcatgtc ggtcatagct  180
tccaggtgta gctgttttagc gttgaggttc tcattggtgt tctccgcaat ctttcttaga  240
gataggactt caagtcaaag ttgagttgca gaatgccttt ctgctagaac ttgggactga  300
agaagtcgaa ctgattcaga caacaaattc tgtgagcttg tctgactgct agtctcaagt  360
aacttgaaca ctgcaacagg acaagacttt ggggttgtct cgctatcttc a           411
  
```

<210> 7674  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H3

<400> 7674

```

cgggtcttagt attcccgggt ccacgggatc ttggagtgtc ttttgcattt agttttcact   60
tttcttttat gcaccatgat ggtatgagat agtccttggt tgatttatag aatgctcatt  120
gcacttcact tataatctttt gagtatggct ttatagaatg cttcatgtgc ttcgcttata  180
tcatttgaag tttggactgc ccgtttctct tcatatagaa aaccgccatt tgcagaaaga  240
tcttttgctt cacttatatt tgtagagca tgggcatatc tttttagaaa agaattaaac  300
tctcttgctt cacttatatc tatttacaga gttgacagga attggtcatt cacatggtta  360
gtcataaaat cctacataaa acttgttaga tcactgaata tggatatgtt gattccttgc  420
aataattttt                                     429
  
```

<210> 7675  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H4

<400> 7675

ccgacgggga agataaatct ccaccgccga acctggcggc gaagctgatc acgaagcggc 60  
tgtacgcgga ggagtcggag tggaagaact ggggtgtggca ctccggagggg gacctgatgc 120  
tcaacgacgc cgtcttcacc gacagcggcg gcccacaacca gaggaagttc gagaaggacg 180  
acctcatccc gcccaagccg ggatcgtacg tcaccaggct cacacgcttc gccggctgct 240  
tgccgtgcaa gcccggaag ccctgctaaa cctaagtggc cccgccggcc ggccggagcc 300  
gatcccttcc gaatcttcaa ttattgcttt gttcaattct ttactcaaa gattcgtgta 360  
tgtattatgt attactagga catttgagta gtctacgggg gtcaagtccg aggaccctgt 420  
aggttgttct tgtacctgca ttc 443

<210> 7676

<211> 357

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-028-Q1-E1-H8

<400> 7676

ataaagctcc aggcgggagg agacccccgc cgcgtcggta gacgagataa tgccgcggca 60  
ggcagtggcg cagtcattggg ttagatatga aagttttgga caccgagcgg aactcagtcg 120  
agagcttata tatgaaaact agtgagagag agaagactat atttatgcaa ttagaagaga 180  
actatataca ttgtttttcc cctaagctca ataaggctctg tgccttttgt ggactgcgtt 240  
tcttctttgt agagacagaa catataatac tgaggattgc agtcaaattg aaattaaatt 300  
caggtttgat actttaataa aaataacagc anaaaaaggg ggagagaaaa cgaaaaa 357

<210> 7677

<211> 284

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-028-Q1-E1-H9

<400> 7677

attcggcgcc gacgggcata ataaaactct agccgtttag cttttgccac cgcgtatcta 60  
tcttccatca tactttctcca tgcagtggca cactgaaggt gtacagatgc ttcacgggtc 120  
aacaatgtgg aggctgtcgt gtgctcatat atatgtaaca tctctagata cgacacaata 180  
tttatgccat ctataactat cacaagagat agtattgtct cataagctct gtaaggactg 240  
atgttctccg tcgattgggt ctattctgtg tagcaacatc atac 284

<210> 7678  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A10

<400> 7678

gggtcgacgg gaagtggaaa tcattcttca tttctgagcg tatgaagctg cttcgggtcc 60  
ttgatctgga ggatgcaaca tcagatataa cggctggcga tctcaagaag gtagtgaaac 120  
ggctgtgtcg cctcaagttc ctctctctcc gagggcatac tgagatcgat catctaccaa 180  
gttcattagg ggatctcagg cagctccagg ccttggacgt cagggacacc tccatagtga 240  
ccctgcctgc gagcatcacc aagttaaaga agttgcagta cattcgtgcc ggccgtggca 300  
ccaccgtctc agcactacct gcttcacct gctggttgcc cgatttctgc aagtgccgtc 360  
aactagttga tgttcaagtg cccggggaaa ttgggaa 397

<210> 7679  
<211> 415  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A12

<400> 7679

ggtaagaat taccgggccg acggggactc cgaattgggt gattcttttt tttgttgaa 60  
actagatttc gtgcactttc caaccaatt ggaatcacct tcaaattcgt ccggagcggtt 120  
gagttgtgca caaaacaatt tgatgctgca gcagaatccg agtcaaacta caagtccaaa 180  
gggtgttacat cacctccact tgggcccattg agccttgtat gacctaaggt tagttttagg 240  
ctgccttggg acgtcctccc acctccttgg ccgccacccc ttctctctat ataagtagat 300

ccatctagta gctttttcct tgggatttgt ttagttaaaa gttagccatt gcaacttcgt 360  
gtacttcgtt tgtgtccaac gaccagacca agaccactta cggattccca acctt 415

<210> 7680  
<211> 236  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A2

<400> 7680

tctgtaaata tccgttggtg cgctggtgac tgtgcagtat ggcgagaacg tgattatcca 60  
cacgatccac gtttagcggtt tcatcggttg cactggcggc aggatctcgg aggcgccgca 120  
gcattccggg ttccgtatcc agtcttccgg atatcgcggtg agtgtcttcg gatctatcac 180  
gtgtggctct tataattctc cttctcgacc tgccagtact gcctcattgt cgtcat 236

<210> 7681  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-029-Q1-E1-A3

<400> 7681

cggggtcacg acgacgtgca cggcgaagac gagcttgatg gcgagcgcat ggaccacctc 60  
ggctccgttc ggtgctcggg acggatgaag acgtccgtgg cgggcctcca ggacgtcctc 120  
ccacgcgaag gcgacgacgg tggtcgcggt aatgacgatg acaagcgcggt tcaccgtgag 180  
agtttccaag ctggaattcg agcgaaagaa gaagggggcg actggggaaa gaagggggaa 240  
tggacgaggg cggctagggt ttctggttga cgcggttata ggccatgggg gagcacgtgg 300  
aggccatcca tggccacggc agccgtggga tggatgccat gacctcctct gaacgggaag 360  
aangggattg ccgttaagtt ggccctggact atgcactgta ccagtgggct acaagtgcac 420  
agtagtagtt aggtc 435

<210> 7682  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-A5

<400> 7682

ggaggttgag aagctgattg gcaggatagt gaagtggctg aagcccgggtg ggcataatatt 60  
catcagggag tcctgcttcc accagtctgg ggattccaag aggaaagtga acccgacgca 120  
ctaccgggag ccaaggtttt acaccaaggt gttaaggaa tgccactcct atgaccaaga 180  
tggaattcc tttagctttt ctctggtaac ttccaagtgc attggagctt atgtgaagag 240  
caagaagaac cagaaccaga tatgttggct atgggagaag gtcaagtgca cagaagacaa 300  
aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatcc tgcgttatga 360  
acgcttgttt ggggaaggtt tatttcacca ccggtggatt cgagaccaca aaagaatttg 420  
tggaacaagct ggatctgaaa 440

<210> 7683

<211> 461

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-029-Q1-E1-B1

<400> 7683

attcccgtat cgacgggtgg cgtaaaccgt aggggtgtcca ttggtggagc catgatgcaa 60  
gcatccaaaa cagacatatt gtatacgaag aatgttcatg ctgccaagag aagtgaagac 120  
attgcccatt tgtcccctgg atgggcgtgt aactagagaa caaaacacta tggcggcaaa 180  
cgagactatc gaaccgaact gattgtactg aaaactagga cctaaacttg tgctgctggc 240  
caaccttttc ttcagggaat gccaagatat tcgccaacaa aagccatagg atggtgctat 300  
acacagagga caacctatca gcaagtcggg ctccagtgtg tttgggtcag cgtccacgga 360  
ggagcagata actgacgaca ttacgnctg ccgggttcac aatcctcatc acacatgacc 420  
acaaccacc caaccgactg ttacaatggg cgtggagctt c 461

<210> 7684

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C5

<400> 7684

acggtctagc attcccgggc cgacggggca aatgacagga agtcactaca acgagctctg 60  
gataataaga tatatcttct cctgtatggc aaaacttttg gggctcctga tggcaaacct 120  
gtttggcatt tcccagaaaa agtgtacgaa aatgaagact ctttgcgttt gtgtgccgag 180  
tcagccctaa aatctgttct cggcggactt gacaatacat attttgttgg caacgctcca 240  
atggctcaca tggtaactga acaaaaagag gattocagtg tttcaccatt caagcggttc 300  
ttcttcaagt cgcaagtgat cggcaccacg catttggaaca tcaggagggtg cgaagaccac 360  
gcgtgggtga ccaaagctga gttgctgg 388

<210> 7685

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-C9

<400> 7685

gggtcgagga catggtaatg ccgtattatc catcgatgct atgtgacttg cttcaccaat 60  
ggctttgcac cttgatccag attgttttca tgcaaagcct gtcattgttg cctcctaatt 120  
accacatcca ctaagtcagc tctatctctc tactactgca actaactaac tgtgatgatc 180  
ttctccaggt tttttggctg gataactgaga tggcaccatt gtgctgctga agttaaaccc 240  
tgtttattgg gacgtacaag cggggcggcaa gcacacatgg cggcaggaga caagccatat 300  
tttaccaatg actgctgcta ggattgatgt cctattgccg gagaaacaat ggcaacagtc 360  
gcaccgtttt ttcttagttt ctttccaagg cactcaat 398

<210> 7686

<211> 344

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-D12

<400> 7686

aggatgaaca gaatattaac cctgacgtag atggagcata tgtgtttgat agccatctat 60

acaagtgcag aacagaagtc gaggtctcttc ttgtctgtta cttgtcgtgc cctcttccac 120  
tctctcattt tgagtccctg tatgagcaac ggtacaagaa gactctcgac taccaaagct 180  
gtggagttga tggctctggag gaactgctta acaagttaaa agatgttgtc gaattgaatg 240  
tatatgagat cagcaacatg aaagtcatca aagccaagtc accaaaatgt agtccctcaa 300  
agccatgtta aatagtgggt gtcctaatat cagtagtata gtca 344

<210> 7687  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-D4

<400> 7687

ttcccgagtc gacggggaca aatcacacat agtcaacacc gcatgggcca tgttggcgct 60  
tatgaaagct ggacaggccg aaagagatcc gtctcctttg cacgaagctg caagacttat 120  
catgagcatg cagcttggca atggtgactt cccacaggag gaaatgattg gaagtttctt 180  
gaaaaatggt cccttgtgtt atatggctta tcgcaacata ttccccatat gggcccttgg 240  
agagtatcat agattagtac tttgctctgg ctaaactagt accttctggt atgaaggaat 300  
taaatgtcgc tcctctgctg gcaatgctga aagagcgatg tcttgattta catgtcttga 360  
agaaagaaac aagaagatag tcgtgttatt ataaggtgggt gtgaatacct gaagttcata 420  
cataatagta taagactatg ttgtaatc 448

<210> 7688  
<211> 323  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-E1

<400> 7688

cggttgactc catggatata cacacaactta cccttccact gtgcgagcct ctattatgcc 60  
gcgcaacttt cgccggtatt atgaacccat tatttacctt ccttaaaaca gccaccatac 120  
ctacctatta tggcatttcc atagccattc cgagatatat tgccatgcaa ctttccaccg 180  
ttctgtttat tatgacacgc tccatcattg tcatattgct ctttgcattg tcatgtgggt 240



gacatcgtat ttgtggcaag gccaccttca taatttttca tacatgtcac tcttgattca 300  
atgcatatcc cggtacaaca acg 323

<210> 7689  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-F12  
  
<400> 7689

gggccgacgc gctgaaaaat gttcagaatt ttttcaagtc ccgaattccc gagttcaaag 60  
ttcaagtcac aaatgtggag gtgcccagg agctgaatt agttgcggat tcgtcagacg 120  
agttagtgc agatgatgtg aagagcacat cagagagttc attggaggag cctagcacgg 180  
aggaattcca ggaggaagat gtctctgatg gagattcaga ctgcaacgac gaaagtaagg 240  
ggccggaagt aaggcttttc atcagcggag tagttcataa taaagaggag gctggagcaa 300  
aatcttatgt tcgagttccc gctgaaataa ataacctgga aagggactcc tttgaactct 360  
acatccctgg aaaaggttct gatcgggatc tgagtgaac a 401

<210> 7690  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-F6  
  
<400> 7690

acggtcaggc attcccgggc cgacgggaaa caaacggagt gtggaggtgc tataataagc 60  
aaacttacca attcccgttg gccaaagggc tctttcatag aatcttccga cctatggcaa 120  
cgggagtggt ttacatcac tgaacctcgc ggcaaaaagt gggtagctac acctgcattc 180  
cattatgtcc ctccattaca acttgcattc tggattaata agggggccaga ctgggtatcc 240  
gttgataaag tgcagacgct gcaaagccgc attcggagcc tcattgaaaa ggacaccggt 300  
ctcatcaata taatccaagt aatgttagtc cgtcgggtcc taccgtgtca gcgacgtcct 360  
ctctgcatgt gggaattcaa tccggaagga ccgtgaacct ttcaaacact ctctggcacg 420  
acgctccgag ggggtgtgaa attattcttc ggcgcac 457

<210> 7691  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-029-Q1-E1-G10  
  
 <400> 7691

```

gggccgacgg gcatggcatg ctcgaaacaa cgagtgcctc caacattcaa cgggtcctag   60
ggggagtttt gcttgccatt attttgattt agtttgcata aatcatggga ctgggcatcc  120
cggatactag ccattttctc gtgaatgagg agcggagtc actcctcttg agaataacca  180
gcctaacacg gaagataagg gcaactctag ttgacatatg agctattcga gcatgcaaaa  240
cagaatgttt atttgaaggt ttagagtttg gcacatacaa atttacttgg aacggcatgt  300
caataccgca tataggaagg tatagtggac tcatatggaa caactttggg gtttaaggag  360
tttggatgca caagcagtat tcccgttag tac                               393
  
```

<210> 7692  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-029-Q1-E1-G12  
  
 <400> 7692

```

attcacgggc cgacggggga ctacatggcg aggatggcgg ccgccgagtc gacggaggag   60
tacttcgagg actacgccgc cgccatgac aacatgggca ggatggaggt gctcaccggc  120
ggcaacgggg agatcaggaa attctgcagc gcgtacgttg actaatggag ccggcggttg  180
gtcgatgtga gttggtgcgc gtgcctccat cgatcgatc gtggacgggg tcacgacggc  240
cgggtgtgccc gccagccgca aggcacttgc attattctag gggtggttag agaattgaca  300
ccgtcacacc gccacgcggc gaatcttccg gtgtatgtaa aaaaaagtcg tctctttggt  360
cttgaccgag tgcccattga gatttggcga gctg                               394
  
```

<210> 7693  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-G9

<400> 7693

tgacgggtcta aaattcacgg gtcgacgggc gatgacagcc gcagttaagc gtcgacggc 60  
gacgtgcaaa ttgcttgcta aacgtaccca ggaatgtgtc gtgtcgtgcg cgcgtgtggc 120  
ccaactgttt tttttagcat cagtacagac acaagcgctc atatacacgc gcatacactc 180  
acccctatga acgcacacac gcacacctta cccctatgag cacctccgaa agacggatcc 240  
ggaaacttat gatgatgcac gggcgcggtg cacgtctggt ccgaacgttg acgatggtgc 300  
ccattttctg cagtctgcac cacattttat tgacctgcat tgtatttgta tgttgggcct 360  
ggcaagtttg actcctctcg gcgagcgat aaaaatgcc ctgggttggt gttg 414

<210> 7694

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-029-Q1-E1-H12

<400> 7694

catgaacgcg cgacggaccg ccgctgttgt gacgcatgcc aggcggactg tgagccatgt 60  
cgaccatcag gacctcttcc gcgaggctgc tgctgtcgca ctcgaaatagg gtctcgacgg 120  
agccagtcga cagatcaaac aggccgtaga gagattcgtc gggctcaatt gccgcgactt 180  
gaggggtggc cgacttacgt gccaccacat gcttcaccca ccactgaagc cgtgactgac 240  
cggatctctt gtgacggcga gcggcgggga gcaaagatgt tgcggggggc aaccgatatt 300  
gagttgccgg ctgccacaga aggacaccgc gaatgcacgc gcaaaagtgc gtcgccccgc 360  
ggacgcggag cgcct 375

<210> 7695

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-029-Q1-E1-H4

<400> 7695

ttcgcgggtc gaaggagcc caaagacggc ggagaagccg tcggcaggcg acatcgtgtc 60

gatggtgatg aggagaaggc gtgcgatgcc caggagcgag cagccctctg aagctgggcg 120  
cgtgaaatcc tctggcgga tttttggata cgtgcgagaa tccagtggta aacaagagaa 180  
agagggcctg gcatcacctg gtgaggggga gaaaacacca cagaccaagg aaggtgtggt 240  
ggctgctttg gggggcggtg aggaaactgg gcttactgca ggtgcgccgg tttctgcaga 300  
gaaggcaata gcggtgatg ccgctgtggt tgagggaact ggaggtgcga ctgaagcttg 360  
ttctgataag ctgggttctt gtgcaaattc agagaaatcg gcgagtggtc ctcggcatgt 420  
ggaggctgta ngaggtgcga cagaatc 447

<210> 7696  
<211> 355  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-H6  
<400> 7696

aggcccagta ttccgtcaca taacatagaa tgtcctgcac cggatgtatg gaaggaatcg 60  
ggcgtgtgtt aactgatcta atgttacacc gatttcatca tctcctcgat gacgagaaga 120  
ttgttccgaa cagaactcat ctattatcag tgttccgttg tcagtgtgta gtttactctg 180  
catcggaact ttgttttact caacgaatgc atactgctat cataaatgtg tcaatgttga 240  
tcgtagcatg tcatacctgt ctgactgata caatgatcaa gtagtccatg aatgataact 300  
cctgtgtcat ctcagtttca atcatcttga gagcccatg gaattttctg cgtcg 355

<210> 7697  
<211> 312  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-029-Q1-E1-H7  
<400> 7697

ttcccggttc gacagggaag aggaagatga agaagaggaa gaagaggaag aagaggaaga 60  
ggaagaagat gaagaagaag aagaggaaga agaggaagag gaagaagagg aagaggaaga 120  
agatgaagaa gaggaagagg aagaagaaga agacgaggaa gagaaagaag aggaagagga 180  
cgaagatgaa gaagaatagg aagaagaagg aggagaagga gaagaaggag aagttggagg 240

agatggagaa gattggagga gaatgagaat atcgaggaga aggataagaa ggatgagaag 300  
gagaagaatg ac 312

<210> 7698  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-H8  
  
<400> 7698

gggtcgacag gacctttaga ttactagaa tttaaaaacc aggtatctca atgtttgcag 60  
ccgagtgacc gtggcatggt gtttgacatt cattccatt ttttgcattg gacctaacat 120  
gcaaccaagg acacatattt gattttattc aaccaactta tatgcattag agcatgtgca 180  
tgtatttcaa atttgaatta tgcacataaa tgcattgaaa acacagttaa tgcataaaaa 240  
tgtccaaacg aaccccgaaa aatcccaaaa attgacacaa cactcctgtt gttctatgtt 300  
agcacgagaa attttttgaa agcaataaga gccatggata tcatttcgtc cccaaatgtg 360  
ggacgtttcc ctacagaacc atcacacttg ttgtgagaag ctctgctttg tgagaagcat 420  
atcccaaac ctgcctca 438

<210> 7699  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-029-Q1-E1-H9  
  
<400> 7699

cggctctacaa ttaccggggtc gacggggatc gccaaagccga gcggaggccg gagagggaga 60  
aggaagatga tactcgccgt gctcttcgcc aactccgagg gcaacatcct catcgagagg 120  
ttccatggcg tccccgcgga ggagcggctg cactggcgct ccttcctcgt caagctcggc 180  
gccgagaacc tcaagggcgc caagtccgag gagctcctcg tcgcctcca caagtcggtc 240  
tccattgtgt ataccatgat cggggacgtc tgcctgtaca ttgttgcaa ggatgaatat 300  
gatgagcttg ctttgttga ggtgatcttc gctgttacgt cggcgttaa ggatgtgtgt 360  
gcgaaaccac ctaccgagcg cctcttctc gacaagtatg ggaagatt 408

<210> 7700  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-A12  
  
 <400> 7700

```

gttaaagttt gtgattcccg tagcatgcac gtatggtgaa ccgttatgtg atgaagtcgg   60
agcatgattt atttattgat tgtcttcctt atgagtggcg gtcggggacg agtgatggtc  120
ttttcctacc aatctattcc cctaggagca tgcgtgttat actttgcttt gataacttct  180
agatttttgc aataagtata tgagttcttt atgactaatg ttgagtccat ggattatatg  240
cacttttccc catccttcca gcattgctag ccactctaata agcgcgcact tttttgccgg  300
taacatacac ctaccatata gcttcctcaa aacaggcacc atacctacgt atcatggcat  360
tcccatagcc attccgagat atattgccat                                     390
  
```

<210> 7701  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-A3  
  
 <400> 7701

```

acggggccaca cgagagggag acctaccagc aagagagggtt tcgttcagtt ctgctatgag   60
ccaatcaagc aaatcatagc cacctgcatg aatgatcaga aggataagtt gtggcctatg  120
ttgaagaagc ttggagtgc catgaagaat gatgagaagg acttgatggg caaggctctc  180
atgaagcgtg tgatgcaaac ttgggtgcct gccagtcgtg ctctgcttga gatgatgata  240
tttcacctcc cctctccttc aaaggcccag aggtaccgtg tggagaactt atacgaaggc  300
cccccttgatg acatatatgc aaatgctatc agaaactgtg accctgatgg tcctcttatg  360
ctgtacgtct ccaagatgat tccagcatct gac                                     393
  
```

<210> 7702  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-030-Q1-E1-A5

<400> 7702

```
tcacgggtcg acggagaggc agatgctgct gttacgttgt actgttagct ctgacgttaa 60
ttaatccgtt aggccgcgta ggtgtccagc aaaacacggc atcaatcgct ttttaatacg 120
ctttaatcgg tcgtcgtaca gaacatacat atgcatgcgt ggacgcccac tgtgcacgct 180
cacatcccc gaaagatgca gagggtgcaga cgaagagaac ttgaagaaga aagtgatttt 240
gatcgactgt tgttggtttg accaagatga acttacacct ggccatggcg cagaggccgg 300
atcgcaggcc taactctcaa gagctctgat gtgagggtgaa attgaactga actcaactcc 360
attgtgctca ttcacaggc cagtcagtca gagagtcngc gtcaacgtac cctagctagc 420
tgtccctagc cacc 434
```

<210> 7703  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-B2

<400> 7703

```
attcaagggt cgacgggtgc gtgtgagagt gtcggattcc gaaacggata atggagaaat 60
cggatgcaag ttttgaaaaa catgaagatg aaatgcacat gatgacatgt caaagagcaa 120
catgcaagcg aatgacatgg taatgatggt gaataactgg aagacacctg gcgcatcgga 180
ctcggggcgt cacaactctc ctccactaac aaaagatctt gtccagagat cttaggaacg 240
agatggaagt gaaagagggt gaggtaaaac aagagctgaa gagagaagaa gaacaaagtc 300
gagaacactc gagggtgaaa gaggaatgat gaatatgatg agaataaaag ctcaaggatt 360
aaaatatact ctgaaaccac tcctgttaga acaagatata aaaggaataa gaatgaaaga 420
actgtgataa catctcggtt gga 443
```

<210> 7704  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-B5

<400> 7704

```
actcacgggt cgacgggagg ttcaagggag agaagcgaca gagttagaag ttgtaaatat 60
gcattgttgt atcgcgacct gaatgaaata aacgaaataa tgctcttggt caatcggtcaa 120
aaaaaaaaaa agaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggggcy gcccaaaagg 240
ttcaaatacta attaacccctt aaaggaaagt taaaaccctt tcaaaagtgt aacaaaattt 300
aatttaatgg gccttctttt aaaaagttct taacgggaaa aacctggggt taaccaaatt 360
aaaccctttt aaaaaaaccc cccttt 386
```

<210> 7705

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-B6

<400> 7705

```
actcgcgggc cgatggggtg cgcaatagtg actcatctta atggctttta agaaagcgct 60
gctagggaga caaccggaa gttttagaga gtcatttatt tctgttgtgt gctttcatat 120
tgtttaaaaa caaaaaata aagaggggaa cctaaaactt ttcaaaaggg aaagtgaag 180
tgagaaagac aagcattgtt gaagtgggag ctagctttga actttgttca tggtcacgta 240
aactttgtga atcttgatta cagaaacttt tcatcaaaaa aaattatccc cttgtacaat 300
tccattgtat tataaaaaata atgtgctaag gtttgctttt aggatgttta caatgcttgt 360
tggtttgtac ggtgcaggac agaaactttg gctgtagtgc gcgattttta gttttatatg 420
gaacgtcaaa tggtt 435
```

<210> 7706

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-030-Q1-E1-C1

<400> 7706



attcaaggggt cgacgggaaa acaaaatacg gacatagaag catcatgttg attattataa 60  
tagcaacaaa attaaaaata aaacttttat cataggactt atatcatata cttctcatga 120  
ataattaata gttcatcaca caattgaagt ataaagcaaa aactctatta aaaaccaaca 180  
aactatgttc tcagtcaact ttgcaactac aattcatcat gttttcagga agggtcgcat 240  
atcggagcct ttaggcaagt ccacatactc aaccatcata tagtcttcta tgattgctaa 300  
cactcacgcg gtacacatga gcaaaacatt tcaaccggac acatagaaag attggggcctt 360  
atagtttgcg ctcccagcgt attcacctca aggggtgatgt caacanttat tattcatgct 420  
atctatattc aactggacat atgtgcc 447

<210> 7707  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-030-Q1-E1-C2  
<400> 7707

attcaaggggt cgacgggggtc tgcaaacttt gaatacttct gtaactccaa aaattctgat 60  
aaattacgaa aacctgggaa atttgtatat caaacttttg ttaaaaaatt catatcaaaa 120  
gcacgtttct gagatTTTTT taaaattgtt ttaccgagcg caaaagtttt tgTTTTTcag 180  
caagatcaaa tcaactatca ccgtaagcca tccaacgggt cttacttggt tcaaacacaa 240  
attaaaacac caaaacacaa ttactactgt tggcaatcta ngaacngtgg tcncaacacc 300  
tgctgcctg cgccccgagg cgtggctcct ccggcgggcc tgtaacgacc atcttcacca 360  
gcaaacattc aagaccctcg cgagggggcca agcctcacga ggcaaacgtc gc 412

<210> 7708  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-C5  
<400> 7708

ctccccggcc gacggggccac tgaagatgaa gacagcggag gcggatatcg ccgggttcct 60

gtcggagcag gacaatagcg gatacttccg gtacgtcgcg ccgtgcacct tctacggctc 120  
 gcccctccca aaagaggaaa agggacagga gaagaagaag aagaagccgc ctcagttcat 180  
 gctggtgttc atgtgcgtcc cgggtgtctcc agggaaaagc aggggtgatct gggcggttccc 240  
 gaggaacgtc ggcgtctggc tcgacaaggt cataccgcgg tgggtactacc acatcggcca 300  
 gaacgccatc ctggactcag acatctacct cctccacatc gaggagcgca acttcgccgc 360  
 ggcgggcatc gaaaactggc agaaagccgt gtaggtgccc acgtcgtcgg acaccatggt 420  
 gattgccttc aggaact 437

<210> 7709  
 <211> 237  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-C6  
 <400> 7709

aggaaccct atagtgatgt cctatgaggt ataaacatag agaagttgga atacagtagg 60  
 ttgaacacca atataaataa agaatgagtt cattacagta ccttaaagtg gtgggttatg 120  
 ttcttactca aacggagctt acgaaatatt ctgttcaagt tttgttgtgt gtagttttca 180  
 tgtcatttgg gtagagaatt gatgtaattc attttaaaga atggattgag cctagcc 237

<210> 7710  
 <211> 285  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-C8  
 <400> 7710

actcgcgggc cgacgggcat ccataggatg aggcggagaa agggagggga gagccatcat 60  
 gtgcaggaca cgagcacggt tcttctaggt attcccctgt cctttattcg aagcaagtca 120  
 aattaggtaa taataacact gcaaatcttg aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa acgtaaataa aaaaaataa aaaaaaaaaa attaaaaaaaaa aaaaaaaaaa 240  
 caatgaaaaa aaaaaaaaaat aaaaagagat gtcacgatag ctacc 285

<210> 7711

<211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-D1  
  
 <400> 7711

```

gtaggcgtct agaattcaag ggtcgacggg ccacttctgg attgcatacc aaagatggca   60
atacctagat ctattcgtgt ttttatgcct agctaggggc gttattcgat agcgcttggt  120
gggaggcaac cctattttat ttttgttatt tacttttggc tcatgtttag taataaataa  180
ttcatatagc ctctggttag atgtgggtttt aagttttaat tagtgtttgt gccaaagtaga  240
acctttggga agacttgggt gaaagttaat gcgatcttgc tgtaaaaaac agaaactttg  300
cgctcacgag attagatgta atttttttta tagaagagtg attttaagtt gattattttt  360
gcaaaagatt catagtaaaa ttctcatct ccaccaattt attttataat ttttggagtt  420
acataagtat tcgagagtta cagattccta cagac                                455
  
```

<210> 7712  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-030-Q1-E1-D10  
  
 <400> 7712

```

ccgggtcgac gggatgggga atggggcagc agcgggcggc gacggcggtc gcggtaacgc   60
tagccgccac tcctagaggg aggagaaaac gagagaggcg aatgaggaga cgaggacagg  120
aataggatct atggttcgat gcattttcac ctcttttgtc tattcctata cgacacagta  180
aaaatccagg tggcatagcc catcggccgc tctttacgcy tgccttattg ttatggattt  240
ttatctcata tgtaaagtta tatgctacac tccaatgaga caacaatttt atgggtctttc  300
aggtattatt taacatgtga cttggatcag tcttatttca tactatcagt ttacgggcta  360
cagaatgaag caattaaaga                                380
  
```

<210> 7713  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-D5

<400> 7713

caggtctagg actcgcggt cgacgggctc ccctagaatg acgtcgataa aatttcaaga 60  
agtatcaagc atctaagatt ggggatgccc cggtaggcat cccacctttc ttcttcaaca 120  
actatcggtt agtatcggtt gagcctaagt ttttgcttct tcacatgagt tgtgctatcc 180  
ttgcaatgta gttttattta gctttgcttg ctgtttgaat aaagtatcaa gatcagaaat 240  
tattaaatga gagagagtct tcgcatagtt gcataattat ttagctactc attgatcctc 300  
acttatatct ttcagagtag tttgtcattt gctctagtgc atcacttata tcttttagag 360  
catggtggta gttttatttt gaagaaatag atgaactctc atatttcact tagattattt 420  
tgagagtcgt taata 435

<210> 7714

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-D8

<400> 7714

tcgcggtcg acgggacggt gtagattgtg tcggtcaagt ctgaagactc gctggacatg 60  
gtgctgctgc cgggcaagga agcattgctc atgcccagg aatgtagcaa gacatcttcc 120  
agcgccggct ctgggcgtgg gatgacgtcc tgggggacct cccaccgctg atgatcggcg 180  
tcggtgatgc gcacgtggag ctggttgctc gtctctaggc tgcccccggt catatcaaaa 240  
ttaatacaat gagcatacga gttgtgtgca ttatgctggt tgtaatgggg agtatcatat 300  
actagtatca tgcatatgat actagtgtgt gatactacct tcgcaatgca tagtatcata 360  
agttagtatt tttgactgcc ttagtaattg ccatgcatga 400

<210> 7715

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-E12

<400> 7715

tcagcagcgc gccgacatct gctctcttgt acatggatgg atggaagcgt tggcccagcc 60  
 tgttgtcttc ttgccgcgt gttgtctctg tgttgtatca taactcgaat caattcggtg 120  
 gttgtacctg agaggccatt cctttcattg cctaggaatg attttaagtt ggtgcatttt 180  
 ggatgcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aacaacaaaa 360  
 a 361

<210> 7716  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-E5  
 <400> 7716

ggtctacaac tcgcggggtcg acggggacca caaagaacac accgaaacct tttgcggaag 60  
 ctgcaccggc atatacaatg caagcgagtt ctggatcggc tgcgacatgt gcgagcgggtg 120  
 gttccacggc aaatgcgtgc ggataacccc ggccaaagcg gatcacataa agcactacag 180  
 gtgccctgaa tgcagcagct ccaagaaaat gaggcagtag gccgccgcct gcaagtctgc 240  
 ttcagccgtc tctgacccat ctgatcaaac tacaccatgt ttcttttctg cccaaggctcg 300  
 cggctagcgg atgtggattc ctctagaaac tgtgctccct cccatgtggt agtctcctag 360  
 ccgtaggtgc tgtgaaagac tgatacatag ctcatactct cgtagcatta tacatgtttc 420

<210> 7717  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-F12  
 <400> 7717

cccgggccga cgggtatcac aggaatgtgc ttttgcgttg attctttttg ctgctgttca 60  
 atagataaat tgtccaggac ttctatttt ggtaggattt ttagagttcc agaagtttgc 120  
 gttagttaca gattgctaca gacttttctg tttttgacag attctgtttt tcgtgtgttg 180

tttgcttatt ccaatgcac tatggctagt aaaatagttt ataaactata aggaagttgg 240  
aatacagtag gtttaacacc aaaataaata aagaatgagt tcattgcagt accttatgtg 300  
gtgggtttgt tttctttcac taacggagct tataagattt cctgttgagt tttatgttat 360  
gatgttttca agttttgggt 380

<210> 7718  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-F4  
<400> 7718

aattctaggg tcgacgggcc attcttcagt acaaattcca tctctgttgt agcatgtttt 60  
ataactgaat caccattctt ctatataagg catgcaaggg gaagacgact atgttagaat 120  
ctgaagggtt acaaatcagg tctttgcaaa agatccaaac tccaggagat aataaaccaa 180  
ctccattttt catagatact gctccagcac agagaaaccc aactcccact gataataagc 240  
agatttcaat ggccaaagaa ctagtccgct ccagtccagc aaaagaatgt caactccatt 300  
ctaagaagcg tgtgcgtatc ctgcgcatcat gaaattttat accattctta tcatattttc 360  
tacatgtttc ttaccogtct ctctttttaga aaataagggt aaacgataca agacttcctc 420  
cattgggatc gtattcgagg aaa 443

<210> 7719  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-F7  
<400> 7719

tcgcgggtcg acgggtgtcc ctacactgca tcccactata gccaccaaaa accaatcggg 60  
accctgttcc ggcaccctgc cggagggggg atccctcacc ggtggccatc ttcacatcc 120  
cggcgctctc catgacgagg agggagtagt tcaccctcgg ggctgagggt atgtaccagt 180  
agctacgtgt ttgatctctc tctcgtgttc ttgaggtggt acgatcttga tgtattgcga 240  
gctttgctat tatagttgga tcttatgatg tttctcccc tctactctct tgtaatggat 300

tgagttttac ctttgaagtt atcttatcgg attgagtcctt ttaaggattt gagaacactt 360  
gatgtatgtc ttgccgtgct tatctgtggt gccaatggga tatcacatga ttcacgtgat 420  
atatgttttg gtg 433

<210> 7720  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-F9  
<400> 7720

attccccgggc cgacgtcatg ccgcaagagg tcgagagcgt ctccccgggag ccggaacagg 60  
aggagacatc cgcggccact ttgagagacg atgatgggga atcggacgga aaaaaaggca 120  
ctgatgtgaa ggaggccgca ataagggcag aggaaaaggg aggggaggat aagctgaccg 180  
tcgaggaaga gaagaaggac ggcgaagaac aagaaccagc cgtcgtccg gtcgagtcat 240  
cgtctagttg aaattgagat gtgagatcgt gcatgccaac tcggatgtat tgggtgcgtgt 300  
atgaaccact gaatgtacag tttgctctct tcctttttct ttttcagcca aaaggatcct 360  
tccccaatgt aaaaagcttt gcgtt 385

<210> 7721  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-030-Q1-E1-G10  
<400> 7721

gggtcgacgg ggaggaatag ccatccaggg tcaagcccct ggcaaaatcg taagtgtccg 60  
gatacccaaa taacttatgg cgctcctcta ttattcggtg ttttctgacg ccgaattcaa 120  
tcatgcagtc tgccaaggc tcagcttggc gattcgtcga gcggctcctt ggattcgtcg 180  
gatgtgaata gtgcttcact tccgacggct tcctccctgc tccctgcgga cgacgccgag 240  
gtggagtccc aaaagggact aaaccaggag gaggttggtc tggaggtgcc gcaaggcatc 300  
ctcctggact ccaggcccaa agggggtaaa gcccagtggt gatctaagtc cggccctggg 360  
ccggacactg ctacagaacc atcaacggtt 390

<210> 7722  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-G11

<400> 7722

```
tccccgggtcg acggggggcgg cttctctgtg acttgtcacg tggcggatgt gaccggaaat 60
ggggagaaat ccttggtcgg cctgctgctg gccagatag cagtgcgct tccgctcgtc 120
tccatcatga tgtgatacgt ctccaacgta tctataattt ttgattgctc catgctatat 180
tatctactat tttggacatt attgggcttt attatccact tttatattat ttttgggact 240
aacctattaa caggaggccc agcccagaat tgctatTTTT ttgcctgttt tacgggttcg 300
aagaaaagaa atatcaaacg gagtccaaac ggaatgaaac cttcgggaac gtgattttct 360
caacgaataa gaccggggag acttgaacc tacgttaaga aaga 404
```

<210> 7723  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-G12

<400> 7723

```
tggcagttgc cgcgtcgacg gaggagtacg tccaggacta cgccgccgcc acgatcaaca 60
tcggcaggat ggaggtgctc accggcgcca actgggagat caggatattc tgcaccgcgt 120
acgttgacta atggagccgg cggttggtcg atgtgagttg gtgcgcgtgc ctccatcgat 180
cgtcatgtgg acggggtcac gacggccggt gtgcccgcca gccgcacgc acttgcat 240
ttctatgggt ggtagagaa ttgacaccgt cacaccgcca cgcagcgagt cttccggtgt 300
atgtaaaaaa aagtcgtctc tttgttcttg accgagtgcc cattgagatt tg 352
```

<210> 7724  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H11



<400> 7724

gtccgggtcg acggggatcc aaatatgtta gtattgttga gaggacttgc actagtgaaa 60  
gtatgaaccc taggccttat ttccacgcat tgcaataccg tttacgctca cttttattat 120  
tagttacctt gctgttttta taatttcaga ttacaaatac ctttatccac tatccatata 180  
ccacttgttt taccatctct tcgcogaact agtgcactta tacaatttac cattgtatcg 240  
gggtgtgttg ggacacaaga gactctttgt tatttggttg cagggttgct tgagagagac 300  
catcttcac ctagcctcc tacggattga taaaccttag gtcatccact tgagggaaat 360  
ttgctactgc cctacaaacc tctgcaattg g 391

<210> 7725

<211> 384

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H12

<400> 7725

acatgatcac cggttcggc ttctacgagc cctactggct catcgacttc gccaacgtgt 60  
gcatcggtgt gcacctcgtc ggcgctacc aggtgtactg ccagcccatc tacgccgccg 120  
tgagagctg ggcgggggg cggtggccaa actcggagtt cgtcgtccgg cagtaccacc 180  
ccttctcggg caagttcagc ctcaacatgt tccggtggt gtggaggacg gcgttcgtga 240  
tcgtgagcac ggtgctggcc atctcgtgc cattcttcaa cgacatcctc ggctgctcg 300  
gcgcgctcgg cttctggcgc ctcaccgtct acttccccgt ggagatgtac atctcgcaga 360  
gcaagatgaa gaagtactcc agga 384

<210> 7726

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-030-Q1-E1-H2

<400> 7726

attccaaggt cgacgggcaa gttcaggggc tatgcgctct ttgtgtacaa gacacctgag 60  
ggggcgccagg cctcactagt ggactcaact aaggtaatcg atgggcaaca gctcttctgc 120

aagctagcca tcgaggggaa gaaggggaag cagcaaccac aacaatctgg gcctgccggg 180  
 caacagcaac catagatgct ccaggggtggc ccgccggaca tgacgggttc tgggcttggg 240  
 ctaggtggag cgcagatggg tgggcaatat ggtggccctg ggaatggtat gccatcgttc 300  
 ggcgcatttg gtggtcccaa cccatatgcg aacatgccat cgtccatgag tggcgggtgg 360  
 ggagctgggt tgggctcaat gggaaatcag atgcattccc ggaatgggtt ctgctggggc 420  
 tgggtgcattt ggcaccggcg ggctg 445

<210> 7727  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-030-Q1-E1-H4

<400> 7727  
 tcgacgggct atgggaagag ttcacctttt gaggatttga cgacagaaaa tctaagggttc 60  
 ttgtcgtcga agcaggcttt atctgatttg gctgttttcc gccagtatta tcaggaaaca 120  
 ttaaagtcca agtataatcg ctcaggagta gacaattctt ggtttgtgtt tggagggctc 180  
 tactctggag ctctcagtgc ttggttcaga ttgaaatttc ctacttaac atgtggaagt 240  
 cttgcaagtt caggggttgt tcttgctgtt tacaacttta ctgacttcga caaacagatt 300  
 ggggagtcag ctggtccaga atgcaaagaa gcacttcaag aagtaacaaag gcttggtgat 360  
 ggacaact 368

<210> 7728  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-A10

<400> 7728  
 attccccggc cgacggggaa gagtatcgtc agcacgacgg cgtggtgacg atcttgatga 60  
 actacagcag cagggcttcg cctaaactcc gctacagtat tatcgaggaa tatggtggca 120  
 gggggcaccg cacacggcta aggaatcgat cagcaggatc aacttgtgtc aacttgtgtg 180  
 tttagaggtg cccctgctc cgtatataaa ggagtagagg gggggaggct ggccggccat 240

agagggaggc gcaggagagt cctactccct ctgggagtag gattcctccc cccaatccta 300  
 gtccaactag gattcctcgg aggggaaggg agagaggggg gccggccacc ttctcctagt 360  
 cctaatagga ctangggaag gggaagangc gcagctacct ttgggctgcc 410

<210> 7729  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-A11  
 <400> 7729

gcccgggccg acgggcgggg ctgtcttgaa gagttgtatg cagcttcgcc atacacctcc 60  
 ttcatcaaca acgacatcct ggacatctgt gcgagacaga aaaaattaag acttgaaaat 120  
 acgttaaagc acaccacgca cgtggaatga aaaaaaggaa aaaaaagtga aacacagacc 180  
 acatacaatt tcgacacgtt ctccatggag tcggttcctt gaaagggttac gccctgtata 240  
 tctccacgag tcatggatat ccagggactc acgatacttg ttcatagtgt acagtgtgaa 300  
 atgattccga ttccaatatg gtagcatgat ctatcaacat gtgaattaga cgacaaagaa 360  
 gagcataaga agttagctac aagatgtctc agcagtttag aagacaacac tac 413

<210> 7730  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-A2  
 <400> 7730

tcgagggacg cgtttcaaaa gctgaggctt tattacgaga caaagaggaa gaaaatgtga 60  
 tgctgaagca acaattggaa cagtatgaga ataaatgggtc agaatatgag actaagatga 120  
 aagttatgga agaggcatgg aagaaacagc tctcttctct gcagttgagt cttgtggctg 180  
 ctaagaagag cctagctgct gatgacatgg tcacccgagc agctcggact gataccactc 240  
 caacacatgc tcaatacgac tctgaagata caatgtccac agggacccat accccagaag 300  
 ggacagagtt gaaataccaa aaccacaacc ctgaacctag agtggtgaca ggaaactcag 360  
 ataggcgaat aaatgctgtg aatc 384

<210> 7731  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-A4  
  
 <400> 7731

```

cggtcgagat agccgggtcg accggggcgg ataccaaac catcgacta tataataata   60
aggaataata aaagtaagaa aattagacaa gtatcaatcg caagtaagaa tttttttcct  120
ttcagaaaga agataagaac aagaggctca ccacgggtgg gccggcaacg aaatcggcgc  180
gggcgatcga cggcgggtgaa gacggggacg agacgtgacg gaccgctaaa cctagaaaaa  240
tctcggcgaa aatggagctc ggaggctcag tttcgagaga agaaatatta actactgtgg  300
ctcggacatt tcacgaaca cctcatgtgc atangagggtg agctagagca cccaaatgcc  360
ctcccctcgc cggccagcaa aaaacagagc agtgtggagt gctttgctcg ctgac      415
  
```

<210> 7732  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-A6  
  
 <400> 7732

```

attcgggggt cgacgggtct tccttatgag tggcgggtcgg ggacgagcga tggttttttt   60
cctaccaatc tatcccccta ggagcatgcg cgtagtactt tgtttcgatg actaatagat  120
ttttgcaata agtatgtgag ttctctatga ctaatgttga gtccatggat tatacgcact  180
ctcacccttc catcattgct agcctcttcg gtaccgtgca ttgccctttc tcacattgag  240
agttggtgca aacttcgcgc gtgcatccaa acctcgtgat atgatacgtc ctgtcacaca  300
taagcctcat tatatcttcc tcaaaacagc caccatacct acctatcatg gcatttccat  360
agccattccg agatatattg ccatgcaact tccatcatca tcatatacat gacttgag    418
  
```

<210> 7733  
 <211> 354  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-A7

<400>       7733

```
gggtcgacgg gaggcgacag tggaactttt ggcgatcgtg gtggctttgt ccttgctcgg   60
tcgccgcatt tgacgtgcag tacatcatcg acgagtgatg tcaccgttga tctgtatgaa  120
taatttgtgt caaataaaag gggggaagtg actagtgaag taaaacgacc tgtaacttgt  180
taccctattc ttttgcaa atgtcatgcta atcatgccat aaacacgaac tgttcgcttc  240
atcaccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaca  300
aaagataaaa agataaaata aacatgcata aaaaatcaaa aaacttctaa agtg      354
```

<210>       7734

<211>       399

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-A8

<400>       7734

```
attcgcgggg cgacactgtt atggaaaaat gtggtactag ggtgggtggct tgggatcatg   60
agggtctctt ccaagcagca aggtgtgcta agtatgatgg tattacagat ccacttaaca  120
tagaaatcct agcctgccga gatggaatgc ttctagcgaa agatttctta gggctaccaa  180
tctgttatca ctgagacaga ttgttctgat gccaaagtacc tgtgggaaat gaggaaggaa  240
ggacggtcac taggtgtgcg tattcttaag gaaatgcaag acagggttatc taatttttag  300
ggttttgagc ttcggtatat tagccgtatt tgaaataatg tagcacattg ttgtgctaaa  360
gaagctctag gcataggtcc agttcttttg gccgattct      399
```

<210>       7735

<211>       381

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-B1

<400>       7735

```
catacaagga aaacaaattg gggctatttc aagcatgtcg aaatacaacg tgctctcaga   60
```

tgaagccttt tagcctaccc gaacccctc cattaacat gatgtatttt tgaacatctt 120  
 tgaaatgaaa ccaacttttg aaagtatgtg ggaacgcca tggttaagcat cgatgtcaag 180  
 tttggatgat ctccgacacc gtatgcaagt tgcgacacac ccgaccattt atcgggtattt 240  
 tttgattgaa aaaactccag aaaatgaaaa acttgtcaag aaccaagaa agtaggcatg 300  
 gtgccctgag ttgatcatgc aataccatga aaaagaatta gggtcatttg aggaatgtca 360  
 gaaaaaaaaag tgctctcaaa c 381

<210> 7736  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-B2  
 <400> 7736

ggtcgacggg ccatacaaag tcatcaagaa ctggaactac accggcctcg tcgatgccat 60  
 ccacaacggc gagggcaact gctggaccgc caaggtgaca tgcgaggagg agctgatggc 120  
 ggccattgag acggcgaccg aggagaagaa ggactgcctg tgcttcatcg aggtggtggc 180  
 gcacaaggac gacaccagca aggagctcct cgagtgggga tccaggggtct ctgccgcaa 240  
 ctctaggcca cccaacccgc agtagacatt atactagatc tcgattttga tgatttgagc 300  
 gaggcatttt cgatttacta gaatccagcg tacgtttgat tactactccc ttcgttccta 360  
 aatacggatg tatgtagaca tgtttctaga cattttgaat gactactaca t 411

<210> 7737  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-B3  
 <400> 7737

gcatcctaata gactcaccga caatctgtaa cctgtattca tctattgcgt gatgcattct 60  
 attggataca agtcatgggtg ttctgcagtc tgcatttctt cacttagtct ggatttcgag 120  
 agctgttgca tgcattgtgc ctgcgcagta ggctcatctt ttacagtctg tgggctgtga 180  
 actggtaact aggaggttca atgtcagtc attttattga cactgctatt taatttttga 240

gagggatattc attgttcagc atgaattttg ctgtagtcgc acttgtatctt cctagagcat 300  
gtaacagtcg tcacggccgc agatattgaa atcgatgaag ctacattcta tgtaaataca 360  
tatatatata tatatatattt tcccgtaaaa aaaataccct tgaaggaaaa ttta 414

<210> 7738  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-B7  
<400> 7738

acgggattag ctagacagtg tcgtggaaca tgtgcctcat gtcctatggg gatttgcgcg 60  
aatgtttcag acttaagcac acgtgaagtt tgctcaaata ctcgtagtag aaatctgttg 120  
ggtgaaacaa ctgatgggtg tttattagta atatttcagc acgattctgg ccctgtaggg 180  
tcacattctt ttgaatctgc acgtcacttg tttattgtta ctactgctgg ataggctgtt 240  
gccagcctgc ttcgtcaacc gaaggatcgg cataatggca gtcttctctt tgatatccag 300  
tggagactag ttcatagtga tttccgattt attttgagga tttcccctga aggtaacatg 360  
gggtttgaga gtgcacattt caatcgaagc catgaaatga ctcaatt 407

<210> 7739  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-B9  
<400> 7739

gacggggata caaatgaagc agattaacaa ttggttcatt aaccaacgca aaaggaactg 60  
gcacagcagc aacacagctt cctctagcga aaagaccaag aagaaaagaa acgttacagg 120  
taatgacggc acggagcaat cgtggtagac cgggtcccag atgaaacaaa ctagatgtaa 180  
actatacttt tatcatgaag attgctgcag tatattctct ccctctctct tttctggtgg 240  
ggcaactaga tacgaagacg acccgttcac aagcaagttc aaaggcaaag aaggatatcaa 300  
taatagtgtg ccaaagggtg tagcgactcc ggatgtacag tgtgagtgtt ttgctgatgt 360  
aatttgtgta agcctgtgtt gtataaccga ggaacggaaa ggggcaat 408

<210> 7740  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-C1  
  
 <400> 7740

cgggtccagac taccgggtcg accggggggac atatttgaag cagtcgggatt aaacctgtat 60  
 ctctttccct atgggtgtttt gccactggc cctgaacgag gcataattga ggttgtccca 120  
 aatactcgga gtagaaatca aatgggtgaa acaactgatg gtggtttatt agaaatattt 180  
 cagcaagatt atggccctgt agggtcacct tcttttgaag ctgcacgtca aatgtttatt 240  
 gttagtagtg ctggatatgc tgttgccagc ctgcttcttc aaccgaagga tcggcataat 300  
 ggcaatcttc tctttgatag ccaggggaga ctagttcata ttgatttcgg atttattttg 360  
 gagatttccc ctggaggtaa catgggggtt gagagtgcac atttcaagct aagccatgag 420  
 atgact 426

<210> 7741  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-C3  
  
 <400> 7741

gggtcgaccg ggagctacat ccggtacatg gggtcgctca ccacgccgcc ctgcacggag 60  
 aaggtgatgt ggaacattct gggcaagggc agggagctga gccaggagca gttacaactc 120  
 atcaccgccc cgctgcctca ccaggacaac aggccgccgc agccgctcaa tggccgcca 180  
 gtcgccttct acaacccgcc aaacaccatc atctccatcc aatccctagt actccctccc 240  
 taaactaata taaaagctta catttgttta cagagggagt acaataagca agacatagta 300  
 catactccct cctcggttcc acaatataag aacgtttttg acactataca tgtcaaaatg 360  
 agtaaacatc taccagaaaa aaaatcagga gg 392

<210> 7742  
 <211> 390  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-C4

<400>       7742

```
ggattgaagt ctaatcccca tgacttcttg ttttccttg ccgaagcctt agcatactga   60
aagttgcgct tgaagagatt gtcgtcacga caccagagca atgatgatgg gtcggcttct   120
tcaggctgtg gtcaacggac catgcaagga tagaattctt gcgcaatggc ttcattcttg   180
ttcttggggg gaaggcctcg atagagaata tcacccaag ggctcttgat aggatttttc   240
tctgcgtagc cctgggtcac acacttgtag ttgtatcact gttcagccca atagcgtagc   300
atccattgga ttcgagtctt gcgctaattg taatcctctt caggatctgt tttgtacatt   360
tctgcaagat catcatgtag atcctttgaa                                     390
```

<210>       7743

<211>       398

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-C5

<400>       7743

```
attctcgggt cgacgggggt ggcaagaggg cgtcgggctt caatagcttg tctcagcctg   60
agagaaggaa cagcagcaag aagctccagc gccagctttc cttgcactat taattttagt   120
tgcctaattc gttcatcatt catccatcat tttgctgctg aagtgtatta attcttggtt   180
ctgcttacta gattccacct tatgcgctag ctgttgggcg aagtacgtca atcacctcaa   240
aatttagtag atttgaaata tcgttttcat tagccattag tctctatggt gaaagagttt   300
ctgttgaaga aatagctagc taggcctaca acttttccca tgtctttttg tttgatgtct   360
ggatgttatt ggaaacctta agtttctggt gaagaaat                                     398
```

<210>       7744

<211>       369

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-C6

<400>       7744

atccttctac agtaacgtgc cttagaccag agcatatacg aagaccctta ggagtctcga 60  
tctcgagctt gccttgaacg acgactttaa attacatcat tcattcagca ttcagctatc 120  
aatgcgctgc tcaagtgtcc aagctcttag atcagcctac cacattcgac ttaacgctct 180  
acctgttggc acagctacgt caaacaccac aaaatttagg tcaattgaca tgacgtttct 240  
cagcatacac tagtcgtcaa gtcttgtgag ttctgcatta ttcagcatcc aaccatgcat 300  
acaactttac tcaagtcttg ctgtatgatg tatccacttc atgatcagcc ttgtctattt 360  
cttcaagat 369

<210> 7745  
<211> 325  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-C7  
<400> 7745

acgggatgat ccacgaggcc gatgtcgatg gcgacggcca gatcaactac gaggagtctg 60  
ttaaggtcat gatggccaag tgatcccgcc gatgtcccg gggacggtgg tattattatt 120  
ttaccgggga ggaggaaatt gtgctatgca tattagtagt aaggaatgcg gctctcgttt 180  
ccttgtcttt gccccaaacc agaagaagcg tactattaga cgtagttgct gaagagcatt 240  
catggaatcc tcttccccctg ctgctacctt gtctctctcc cgtgtgtcat tgaaacatct 300  
ttctttctgt gtgaaaaaaaa ataac 325

<210> 7746  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-C9  
<400> 7746

gccccggccg acgggcagta gtactttact tctgccatta ctcataggga gtagtctcat 60  
tatectttgt gggaacttca ttcaggacat gacataatgt caatatagcc tccccccacc 120  
atgtcttggga taaacccgat gtatctaaca tgggtgtaac caaatctgct agagtatggt 180  
ttttccgttt ggcaaccccg tttgactggg tgaataggga ggcgtcctct catgaataat 240

accatgttcc acactgaata aatcaaactc attagaaaag tactctccac cacgatcaga 300  
 ccaaactcgt ttaattttct tttcaagttg gttctcaact tctgccttat agattttaaa 360  
 gtagtgtaga tcctcatcct tagtatttaa caaatacaca tagcagaatc tagtggaatc 420  
 attaataaac aac 433

<210> 7747  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-D1  
 <400> 7747

acgggatgat ccacgaggcc gatgtcgatg gcgacggcca gatcaactac gaggagtctg 60  
 ttaaggtcat gatggccaag tgatcccgcc gatgtcccg gggacggtgg tattattatt 120  
 ttaccgggga ggaggaaatt gtgctatgca tattagtagt aatgaatgcg gctctcgttt 180  
 ccatgtcctt gcccacaaacc agacgacgcg tactagtaca cgtagttgct gaagagcatt 240  
 catggaatcc tcctcacctg ctgctacctt gtctctctca cgtgtgtcat tgaatcatca 300  
 ttcattctgt gtgaaataca gtgagacgcc agaagacgcg cacggaacga 350

<210> 7748  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-D4  
 <400> 7748

cggtcgtaaa atccgggggcc gacggaaaat aataacaaaa ttattagtcc gggaaaaaca 60  
 aacaacaaaa aaattccggt gcccataac caccaaacct aaggcaggat ccggtgataa 120  
 taacatctgg acagacttac aaaagagaat atattgagaa atgggttcatt gagggatata 180  
 acacttgtcc caagacacag aaaaagctag aaaactttgc gatgattcca aatacttgca 240  
 tgagggatct catttgcaat tgggtgcagag agcatgggtt cacaatctca gatttccttc 300  
 caagcaaaga ttctacagt tacttgccag agcaattgca tggtcactca atgtcaagtt 360  
 tgcacaatgt ttcagtgcct ctaattgctg ggaatgccag aaattttgtg attgaccaca 420

gcagttcatc tgtcgcgttt tc

442

<210> 7749

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-D5

<400> 7749

aattccggtc gacggggcat gggaacctta ttcggaacct atgcgggtgg tttccatggc 60  
gaggagaggc tgggaaagct tggctatctc gttggaagcc agctaggcag ctgggttggg 120  
ggaagaatcg gactgatggt ctatgatgtc atcaacgggt tgaactacat gcttgagttt 180  
gtccgtccag aggagtatcg atcatcatct tacgcaacat aagagggctc agagtatgca 240  
gataactaca gaagttcgcc ttacgtatca gaagagggtc cagagtatgc acataactac 300  
agaagtcgcy aaggatatga gccaacatac agtgagacgc cagaagaggc gcacggaacg 360  
acggggtgaa gctgtatgtg aacaacctgc gaagcgca ca 402

<210> 7750

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-D6

<400> 7750

attccgggtc gacggggcggg atcatgatca tgaggaatat ataggataat aaggtggtgt 60  
attaccacca tgcccgttga gctgatgttt gtttcagcta gagaaatcgt tacgcccgt 120  
cataattcct ttttcgacgc tctggagaat aataactact ggtatatcat tctatatcaa 180  
agccggcttg tgaaataaat gatccgccgt cttgccttca aaaaaaaaaa aaataaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa 300  
aaaaaggcaa aaaaaaaaaa tacgggcttg ccataagggt ttcaagggtta atttacactt 360  
cttcgaaagt tcaaacttct tctaaatggc cgccaatttt taatta 406

<210> 7751

<211> 402

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-D7

<400>       7751

```
attcgcgggt cgacgggtga tccgaatgat gattgtgata tcaagattag gaggggtgaat   60
gtagagcta atcttgatat ttgtattagc atgtttgagt tttgcatgta gtctagtcta  120
gtgtgggtgtt cgtccgacga aggcttcagg tgagcgcgcc aaggagggtga gatgccagga  180
tgccgtgtga ggcggcgagc acggcgagat gccgatgggtg ctgcgtgaga agcggcaaga  240
cgtatcagag gctggagccg tgatggactg catcaaattg ggtcgggtga accggccggt  300
cgttctgttt gttggactag ctgttcatgc gtgagttcgt ttagtcctag ccgagagtat  360
cgttgctagt agttgatgca tgcatttagt tggcctggtc ac                        402
```

<210>       7752

<211>       398

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-D9

<400>       7752

```
gacgggtcat gacacacact gctaaggatg cttcaaagtc aatttcgatc ctttaccgtg   60
tgattcaaga cccgtcgtcc agagcatgtt gaatagggtc ctacaagggt tcaaactatc  120
tacctcgtca ttcacactgg gtgatcacia taacagagta atagatacta actctgacac  180
aggggaagct aatattcaca atggtccttc tagtaatgat acaatggcac ctacatcttt  240
gcacatgtac aatctccaac atacggagga ccgattctct ctacatattt aaatcatgcc  300
agacctccta atattgtcat aaataaagat tttgattcct gagtgtatct cttcaagcgt  360
catttaaadc atgtgaacaa taaacttttg agaatcat                        398
```

<210>       7753

<211>       380

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-031-Q1-E1-E1

<400>       7753

gcagacgaga tagattatga ggggtgaacaa gactacctcg actttttgac tgctaagcaa 60  
 cgttcgcatg tccgccccga tgatggtact gacgccgata cccacaccga cagcgcccg 120  
 accgatggcg gcgccgatac cagtggggaa ggtagcatca tggaagatac cggctccgat 180  
 gccggtaccg gtaagatgca taagatgcag aggatataac agcctgacat actacggatt 240  
 ggaccacttg tgatcaccat catggcacct ggcatgtttc agacttgcat gtagctcgat 300  
 tttctagatg atcacgcgat acttctttgt gtcggatgat gatttatact agactatatg 360  
 tatgtcaatc ctatgattac 380

<210> 7754  
 <211> 306  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-E10  
 <400> 7754

gacggggagt cgaagcagga gaggatcgag aagctgccgg aagtggagcg ggcgttcgtc 60  
 catgcggact tcgagaccac ccataagccg gagcacacgg tccggagcag gctgccggcg 120  
 accgagccct gacgatggca cttccgctc cagcattcgc cagatcttgt acagcgaaaa 180  
 tacacgcctg aagctgcagt gttcttgttg tttttctctt gcgctgacct cgaaaaacac 240  
 agcgacagag ccattctagaa gatggatgtc tctgtggaat aatacaggat tcgccatttt 300  
 tatggg 306

<210> 7755  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-E11  
 <400> 7755

gacgggaaac gtgaagcggg acggacgtct ctctggaaca aagatacaat agccaaacct 60  
 gagtacggtc gtatccaaca gagacgtaca tcataactat ctacatatcc atcagtatca 120  
 actaaggggt ggtggaatth aacagcaaca tgccagcttt gactcagtgg ctaacatgat 180  
 ctagacggca cgtaactctt ttgaggtggc gcacacgagt ccacatattc accatatcaa 240

tacaccacta tggatccgct cccgtctccc tacgataacg ccatccagag cactcacgct 300  
 tatcttgccg attttacaat atccacttca agttatctat gaactgtaca tgcaaccag 360  
 atgtccttta ctgcggacgc ggctaatacc 389

<210> 7756  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-E12  
 <400> 7756

cccgggccga cgggcctacc tattatggca tttccataga cattccgaga tatattgcc 60  
 tgcattcttc caccgttttg tttattataa cacacttcat cattgtcata ttgctctttg 120  
 catgatcatg tagttgacat cgtattttgtg gcagggccac cttcataatt ttcatacatg 180  
 tcgctcttga ttcattgcat atcccggtag accgccggag gcattcatat agagtcatat 240  
 cttgtttctag ctttgagttg taaatcaata aaagtgtgtt gatcttcatt attagagcat 300  
 tgtctcagtg aggaaaggat gatgaggact atgattcgcc cacaagtcgg gatgagactt 360  
 cggactttac aaaanaaaga gagaaaggcc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaag 420  
 cggccgc 427

<210> 7757  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-E3  
 <400> 7757

cggtcgaaaa tccgggtcga ccggcttatt gatcgattca aattcatgga accgtatttg 60  
 agaactgccg accttttaga accagtgcac cttatgtaca aaggaaactat gagagtgtg 120  
 cttgtactac tccatgactt tcctgaattt ctgtgtgatt atcacttcag tttttgtgac 180  
 gtgatccctt ccagttgcat tcaaatgcgc aatgtcattc ttagtgcttt tccgcgcaac 240  
 atgagacttc cagaccatc tactcctaac ttgaagattg atctgctagc tgaaatttca 300  
 ttacctccac gaatcatgtc agatgtcgat ggtgccctca agttaagca tatgaagggt 360

gatgtcgatg agtatcttaa gagaccagaa ggctcatcct ttttgaatga tctgaagcaa 420  
aaattgctgc tgcct 435

<210> 7758  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-031-Q1-E1-E4  
  
<400> 7758

gcaaggcaaa ccagtgggtc cagcggatcc aggaggccta ctccgttttg tccgacaagg 60  
ggaaaagggc catgtacgac gccgggctct ttgatccctt cgacgacgac gaccaggatt 120  
tctcggactt catgcaggag atgctgggtga tgatggatag cgtgaaaaac gagaagccgg 180  
acacgctcga agacctgcag aagatgctgg atgacatagt caacggcgac ggcggtagcc 240  
gcgccactgc tgggtgctgg gtagcggcg gcgggtgggtg tggctgcggt ggctcgcgttc 300  
caccggaggc caaccgcaga actcgtgtcg ccccttacct gcagccttcg cgaaggtgat 360  
ggacgcgccg gtgctcgtga cgtgcacgca ncgctgcgct tgtangagag agatcagagc 420  
aagaagaga 429

<210> 7759  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-031-Q1-E1-E5  
  
<400> 7759

attcgcgggt cgacttcatg gaggagaagt taaagcatta cccagccgcc gtcaacgatg 60  
aagggatgta tgaccattcc aaggaagtgg ccgaggccat gctcggggaa gctaattgtga 120  
aggtggctcc ccggagcatg ggtgggtgagg acttcgcttt ctacgcgcag agagcggcgg 180  
gtgcattctt cttcatcggc gtaggtaacg agaccgccat ggatagtgtg catccggtgc 240  
actccccgca tttcgtctc gatgaggggtg ttcttctat tggagccgcg tttcacaccg 300  
cggttgccat tgagtacctg aaccgctcct ggaaactaca ggagcatgag tgaaggtccg 360



ttcttggtatt atggagtgaa aatcctctga tgtccgtata gtattagata tccagaatcg 420  
tcttcatttg 430

<210> 7760  
<211> 345  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-031-Q1-E1-F11  
  
<400> 7760

gacgggaaat tggatactgc agttccctta cggactgctc gtgtctgggt gctcttggtg 60  
gagactgcgt cgtctatctg ctaacttcat ctccgttcaa tggccgtcca cttacagtcg 120  
tgggacagcc aaggacagtc acctgacgct ggtggctcac catctgacac cgccgccggt 180  
cctgacgtgc ccggacaaga acttgatcca ccagggttggt ttctccaact acttgaaccc 240  
gctggggatc tgctgcaact acaccgttgg caaatgccac acgccaagg ccatcgagat 300  
tgtgcacaac gtgtgctga cgaatacgag ctgctgctg gccgt 345

<210> 7761  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-031-Q1-E1-F2  
  
<400> 7761

gaccggcaag agtagtaaca aactgaatt tccccattgc cctgaggcc ctgaagacgc 60  
aaccttgtgc tggacggaca aaatgtttca tgtaaaattc gacggctttc gcttctgctg 120  
tcgatggtat ggcgaaagaa aagtaggcat actgtatata ccagctgttg tgttacttc 180  
actggtccta gggggcatgt gatgtaaatt atttctagcg tatgttctcg aaaggaaaaa 240  
agggaaattc cgggtgcctc tagacgggca ttgagatgca tatgctgtac tgtgaccgag 300  
agtagccgat tcagagagat accattttgt gatgaaaaat aacttgcgta aatcgggtgga 360  
tttgtggatg taacaaaaaa acacgaaaat tgcaaaggcg cgtaagtga tatccaccca 420  
ctgtccagat acacagttta aaa 443

<210> 7762

<211> 316  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-F3  
  
 <400> 7762

```

aacacaactg gatcctcctg taacggagga gattatgata cctattaggg ccggttcttc 60
atcaactggg acgccaaggt gctgctggat catgoggacc gcatgctgat gctagccagg 120
ttggcctttg aaggctcagc tattgctgtc aaagtgtcag gcatatactg gtggtacaaa 180
actgccagcc atgctgctga tctgactgct tggttctaca acccatgtaa ccgcgacggg 240
tacgctccaa ttgccaagt actgaaaaac catggtgctg ctttgaactt cacctgcgtt 300
gaactgcgca ccatgg                                     316
  
```

<210> 7763  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-031-Q1-E1-F4  
  
 <400> 7763

```

cgggtccgtgg cgctcaacag cgaaggcctt gagggctctag taccacgggc aaagctgtta 60
ttatcacttg gtggtacttt tttcctggca tttggtcttc tgattattgt cacggtttct 120
ctatttgctg gtctttatct gtattttggg caaagctttg tacacgacgg gagcaagaaa 180
ccagtcgctc caccaccata cattgacca tatgagctac tggaagatga taggatctcc 240
cgccctccc ttgatgtgtt ctgaatctcc acgacaaaag gatagtattt gtagatagct 300
caataatfff cttgttttac tatatatgta cctgtaaatg caatagctgt agactgttat 360
tatccggaat ttggcaatgg ctcgtaggtt catattcacc ca                                     402
  
```

<210> 7764  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-F6  
  
 <400> 7764

attcgcgggt cgacgggcag agagagcggt ccgtggcgct caacagcgaa ggccttgagg 60  
gtctagtacc acgggcaaag ctgttattat cacttggtgg tacttttttc ctggcatttg 120  
gtcctctgat tattgtcacg gtttctctat ttgctggctt ttatctgtat ttggggcaaa 180  
gctttgtaca cgacgggagc aagaaaccag tcgcgccacc accatacatt gacccatatg 240  
agctactgga agatgatagg atctcccgcc cctcccttga tgtgttctga atctccacga 300  
caaaaggata gtatttgtag atagctcaat aattttcttg ttttactaga tatgtacctg 360  
taaagtcaat agctgtagac tggtattatc cggaaattgg caatggctcg taggtgcata 420  
tgcnaccatt gtctanatac acat 444

<210> 7765  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-031-Q1-E1-F8  
<400> 7765

cggaatagc tagcggatct tggtactctt ggggtgttga gcacccata cggttgaggt 60  
caccggaag ccatagtcca ttgtggtgaa gcgtcatggt gtcgttgagg gcctccaatt 120  
gagttgtgga gattgcccc aacctgcttg taaagggtcg gtcgccgcct ccaagggcac 180  
caatagtgga atcacggcat ctgcattgt gtgagggcgt gaggagatta cggtggccgt 240  
agtggcttct tggggagcat tgtgcctcga caccgctcca acggagacgt acttcatctc 300  
agaggaatg aacttcgga acacatctc atctccaacg cctccactct tggttgtcac 360  
gtgcctttag ttgtggcagc gtagttgttt caga 394

<210> 7766  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-031-Q1-E1-G1  
<400> 7766

cgggtcgacg cggtgttgg taaagcattt acctaagtta tggaaaattc ataattcatc 60

agttatttta gataatacta aannacagga tagagtaaga tacaaaaagt ggtaaaagaa 120  
aagtgggatt tcatcaagat tgattacaat gaagtcccct aaatttcgga aatcaaagag 180  
atttggttgt gggaattggt caatgagtta agtaataata ataagaacta gatcatccaa 240  
accattgaa tgaaaaaatg aaattcgatt ttcaaggaaa tttttggata agagattaat 300  
aaacaattga attgaaaaaa aaaaacttca ttctaatttg gataatttcc ttttcaataa 360  
gaccctcttt ttggagtga cgcgcgaata ttcccc 396

<210> 7767  
<211> 351  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-G10

<400> 7767

gacggggagc acaagatcgc ggaggagcac acgaagaccg acggggagca catcaatgac 60  
ggcgtaccac aaggagggca tgatggacaa tcatcaagga ccagatcagc ggcgacggcc 120  
atcgccacgg cagcatggac ggcgaccacc acgagaatag tgacaacact acacactacg 180  
acacgatgca cggctagggc cacaaggacg accacggcca ctgcagcagc atcagcgaca 240  
gcgacagcga ctgagccatc tccggcccg ctcgggcagc atcgtgcagt gtacgctaga 300  
tcgatgaacg cttgcgagat gtgtgccatt catatatgtt gcatggtttg g 351

<210> 7768  
<211> 379  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-G12

<400> 7768

gacgggggatg gcaggttaaa atcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa 60  
aagataaaaa aaaaaaataa acaaaaaaac aaaaaacaca aaacggtcaa aagcgatacc 120  
taaaacttaa ttcaacggcc gttcgtcttc cagggtctcc cctgggttca acttcgtcgt 180  
ccgtcgtttt aatcgccttg caccgggtca ccctttccct agcccgctc tgccccgctg 240  
cgccctttcc ctttttctc cgctgacgtc tctcgcgact gggcccccac ctggtccccc 300

ttccgatccg ttttttacct tgccgggggt gtggaacact ccccgtaacc tgtccgtttc 360  
 cccccaccgg ctccccgc 379

<210> 7769  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-G2  
 <400> 7769

gtcctatggg taacaagttc gatgtcagcg tctgccgcat ccaactgtcg ttttaaattg 60  
 gcaaactcgc tagtccggct agccaccgga gcttccatca cctgcacata gaggcagtat 120  
 ggctattacc tgggaatacg atcctctgtt catcgctggt tccgacgaca actagagtct 180  
 cagggggtac tatctacaca gggcacacct agcatgtgca ggactatcat acattatattt 240  
 acgtacctca aagcctgtca gtagactcat aaaagcttca tgcaatctgc tttcgacgga 300  
 cgagattctc tccatcacct tattcatcag cacacgggtg tcatctgaga tggccgctcg 360  
 cccaccaaac tccctcagaa catccgttca cacaccagac ggtgccggac tcttttttcc 420  
 gctctct 427

<210> 7770  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-G4  
 <400> 7770

aaaattgatt tgatccccgt aggttaaccg gttggttgta aggcggccat accaattgcc 60  
 ataattgtgg caattttccg gtagttgatt ggcttgatct tttggtttgc ttggagggtg 120  
 aactgttcga tcgatggcag agtttcgtcc gctattctaa attgctaaat gcacacaggt 180  
 ggggcctgag ttttatgtgg acggttagat gcctaattctt ggggttgtag tttgtcttgc 240  
 ttttcccggtg tacgtttatt tgggtgggca tagtgaagaa tatgtttgat tgtttaatag 300  
 tataagtaga gaagtagaga tttgtctttc acctggagat tcgatgtagc tcgggtctgag 360  
 catgagtgat agcagtcttg tatcttatgt ttaccatgca aattttac 408

<210> 7771  
 <211> 260  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-G6

<400> 7771

gatagccagc atctcatcga aacatcagga cacctttgcc tctatcaagt ggtttcagat 60  
 tttcagggtg ctcggtgaga ttttacagtt tttcgtatct ttagatcgag tctattcttc 120  
 gtacctatag tccacgaaaa agcgaacggc tacggttagt tcacccctagc cgaaccaatc 180  
 tgagcctttg cataagcctt tctgaatatg cggttgcacc atcgtgtcga gttgctcgtc 240  
 ctagcgtcga gtcctttcaa 260

<210> 7772  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-G8

<400> 7772

gacgggtggg tacattgtga cgtgcaatcg cgcgcgcggg gtagcgtgtc ccctaccacg 60  
 gatcctaggt acgggccgac agtccgacac cgacctacga cgtgcgatcc aggaggacca 120  
 cgtcggccga tcaatcaatc agacgaatta ctaccacggg aataaggggt gcagtgggtg 180  
 gtgattaact cgcaccgcca tgggggctct gtcggtgacc gtgtgatggt ccaccatagc 240  
 ttccagaaga tttcaagaaa cgtctcgttc tagctactaa tttgacacgt atagatcttt 300  
 cgtgtatcag caccgatccg taaatggggc ttccagaaca catcgatcca ttttgctcgt 360  
 gccaaatgcg ggcaagtctc acgtccagaa gcaggaaaag tagagcgatt aagaaagcag 420  
 tcggaagcan atggcaattg gcaagcttac a 451

<210> 7773  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-H1

<400> 7773

caagaaagga ttcagtcaaa tatatcatca gtatcaatca ctatatgaca ccacacaaca 60  
gatatgctgc tgtcagcagt gctctctaaa tagacactgc aattatctta tacatcatta 120  
ctgttgctcag caatgctctc taaatagaca ctgcaattat catgtacatc attgctgctg 180  
caataaacca ctaagaatta ttcaatatct agcctagcgc cttcgttata atcaaccgag 240  
ggttgaggcg gagttacaaa atctgaatga gaaaccaagg gattgtccaa gtcagcgaca 300  
tctttgttat cttcagagct gttagaagca gctgagatgg cgtcaccgga ttctgaatgt 360  
gttctgtcca catatgcttc gggtaaggag ctctcggcca ca 402

<210> 7774

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-H12

<400> 7774

cggggaagcga cagtggaaact tttggcgatc gtgggtggctt tgtccctgct cggtcgccgc 60  
atttgacgtg cagtacatca tcgacgagtg atgtcacctg tgactgtatg aataatttgt 120  
gtcaaataaa acggggggaag tgactactga actaaaacga cctgtaactt gttaccctat 180  
tcttttgcaa atgttcatgc taatcatgcc ataaacacga actgttcgct tcaaaaaaaaa 240  
aaaaaaaaaa aaaaataaaa aaaaaaaaaa aaaaaaaaaa aaaagaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaagggg gacccccaaa agttacaaac ttaaaaaaaaa cggggccccc 360  
caaaaggctc caccctaaat tccccctcaa tgcaaa 396

<210> 7775

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-H3

<400> 7775

gggtcgaccg ggggagaaat ttagttggat ttgttccccg gattccagcg caaagatgcc 60  
gcgcattccc atgatcagat tccccagag gcatctcaaa gtcccatccc cagcagcggc 120

gcagcctgca gaccagcacg cgaccctcat gtcccgattg ggagctaaag tagaggcacc 180  
 atcttctgga gagaaaaaga attaccgctt tagatcagat gtgccttccg caccttctca 240  
 taatgctgtt ggagggccag cttcacagct tccaagcgc aaaccactat ctgaggaaga 300  
 gattgaagct atcatgcaag gcggtgtctt ctgatattgc ttccggccag tggcaccttt 360  
 tgtggagcac caataagccc tacgccgcgc tgcattcgta accgttttgc aca 413

<210> 7776  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-H4

<400> 7776

cgggatactg tagactgcaa cattagcctg tataaatcat ccaaaccctt caagttcatc 60  
 tanggatgca ngtgaccaa gtatttgga cctcatctgg aaagcaaagg tgccctgagaa 120  
 aattagaatt tttgggtgga gagtagccac aaataccctg gccacaaaaa gcaacaaatt 180  
 taagaggacg ctcgaggtgg actcgacttg tgacatttgt ggcaatggcg tggaggatga 240  
 acatcatgcg gtgatcaatt gctcgaacag cagggccctt cgcgttgcca tgaggaagga 300  
 gtggtctctt ccatcagaga aatccttcag acatacaggt anggactggc tacaggcgct 360  
 tttggacaag gaaacagagg aagtttagagc aaaaatctta atgctgctgt ggagatgttg 420  
 gcacttgaga gaagatatcc taagacaca 449

<210> 7777  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-031-Q1-E1-H5

<400> 7777

attccggtcg acgggggttag acattgtaaa tatgcattgt tgtatcgcg cctgaatgaa 60  
 tgaaataaac gaaataacgc tcttgttcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180



aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aacggaacac ccaaaagata aaataaaata aacaccaacg ataacaaaaa taaaacaaaa 300  
 aatcacctca aaaacaaaaa aaaatagacc aataataaaa aaccaacaat caagaaaaaa 360  
 acctagtaaa tcgaaaataa accttatcac aaacaaaaca cctattcaaa aactctgaaa 420  
 aacaaaaaag gcaatcaaaa 440

<210> 7778  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-H6  
 <400> 7778

gcaacaagaa atactaagcc aaatgagaaa aagattccac ggatgagata ttttatgata 60  
 acagatattt ttaccacaa ccataacatt aaagttgtct aacatgtaat caagacttca 120  
 agatatagct ccctttgcac caagagttca aaaaaacagt ttgcaggcag gaaaagttaa 180  
 agtctagaa aaaatccttt atgaagttcc catgactaaa aagattcctc aatgaagttc 240  
 cattagcacc aagttataac ttttactgg ctaattaagg catgaatgat acccagcact 300  
 aaaaaatta cgacctetca aacaacaaca gaacagaaac tttatatgtc cattggccta 360  
 gagcaaggaa gaacctctat gaagttggtg gaaaaggtaa tgtaagttgg gtggaacata 420  
 gatcacatac ctgaatctaa tac 443

<210> 7779  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-H7  
 <400> 7779

cgggcatcac tagagtgagt cgtataagag aaaaagattc cacggatgag atattttatg 60  
 atcacagata ttttttacca caaccataac attaaagttg tctaacatgt aatcaagact 120  
 tcaagatata gtcctctttg caccaagagt tcaacaaaac agtttgcagg caggaaaagt 180  
 taaagctcta gaaaaaatcc tttatgaagt tcccatgact aaaaagattc ctcaatgaag 240

ttccattagc accaagttat aactttttcac tggctaatta aggcatgaat gatacccacg 300  
 actacaaaaa ttacgacctc tcaaacaaca acagaacaga aactttatat gtccattggc 360  
 ctagagcaag gaagaacctc tatgaagttg gtggaaaagg taatgtaagt tgggtgg 416

<210> 7780  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-031-Q1-E1-H8  
 <400> 7780

gtttcataat tttcaacttt catccatggt aaaaatgctt aaacttggtg tttgctttat 60  
 atttgcataa atgccatggt aaaatgattt atttcataac taattaacca taactccgaa 120  
 ttaaataaac tatatatgta aattgtctag aaaaatgcat agattaacat ggtgcacttt 180  
 gttttattgc ttaacaacat taaaatatgc tttagggaga acagtagcta attaaaatat 240  
 ggacatgagg attttctgga attggtgttt gttgttccgg cctcatttaa acttacctag 300  
 atatgttggt ttattatgct tcacctcttg ccatgtttaa caacatttaa tattgtttgg 360  
 tagcttgac gagattaaac taaatatgtc aatgtggtgt nttgtcaata tgcaacttgt 420  
 tgcattattga gct 433

<210> 7781  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-031-Q1-E1-H9  
 <400> 7781

ggtcgacttc caacaaaacg aaatccacca tctcatcgaa agacgggaca cctttgcctc 60  
 tatcaagtgg tatcagattt ccagggtgct cggtgagatt ttagagtttt tcgtagttta 120  
 gatcagagtct gttcttcata cctacagtcc acgaaaaagc cacaaaataa aattaggggt 180  
 agttcatcat atccgaacca atctgagccg ttgcataatc tttttagggt tttgctttgt 240  
 tgaatttgcg gttgcatcgt cgtgtctagt tgctggtctt agagtctagt ctttttagagt 300  
 ttcgagttct ggtcagaagt tgtcacgccg ccgccgcacc atcatcatcg cccctgccat 360

cgaccaccac cgctccgaaa ctgtatccat ataccatcac gaatccgtgt ccatatatca 420

<210> 7782  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-A10  
 <400> 7782

gggtcgacgc ggagatgtga atgaaggag gtcggtctga gttgcagaaa agcatgggac 60  
 tacgcaaccg atgacgaaca tttgcactga gagtgaagag cgagggccac gcccttgcg 120  
 aagatgccgc cgtgcatgta atctacaaag aagcctacat gatcaacgcg ctagtcacgc 180  
 atgcaataca gaatgtctat ttgaacgctt acagggttcac acatgcagct ttagttggca 240  
 cggaaggtag agacagtatc caggtaggta cgggtggactc agattgaaga actttggcgt 300  
 tcattgcagt gcctgaggac acagtagacg cgcttattac 340

<210> 7783  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-A11  
 <400> 7783

gacgggggac acaaacacac ttcatcccc aaaacggaat tgcaaacccc ctccaatttg 60  
 aaaataccat tgacaacagc aaactttata aacccttggg tgtcaaaacc aaccggcctt 120  
 ggtgtgtcaa aggttaccgc gacaccttaa ggaacattgc cggatcaacc cacatgctgc 180  
 atcaactatt tgtacctata caaatattca tcatgctcaa tctccctact ccttgttttag 240  
 tactgcctcc gtcccataat atagtgcata tagatttttt tgagaagtta aacatcacia 300  
 actttggcca agtttgggg ggaaaaatat ttacatctag aatatcaaac atgtatcatt 360  
 agatccatcg taagatgtag ttccatattt t 391

<210> 7784  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-A2

<400> 7784

gggtcgaggc gtccttggag ttgatgggtt cggtaaagtt taccagggag agatcgatgg 60  
gggcacaact aaggtggcta tcaagcgtgg caacccttg tctgagcagg gcatacatga 120  
gttccagact gaaattgaaa tgctgtcaaa gtcgccac cgccatcttg tgtcgctgat 180  
tggttactgc gaggacaaga atgagatgat cctgggtctat gaccacatgg cccatggaac 240  
tctgcgtgag cacctataca agaccagaa tgcgccgctt agctggaggc agcgtttgga 300  
gatctgcatt ggtgcagccc gtgggctgca ctacctcac accggtgcaa agcacaccat 360  
tatccaccgt gatgtgaaga ccacagacat cctcctggat gagaaatggg tcgccaagg 420  
t 421

<210> 7785

<211> 278

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-A3

<400> 7785

tttctcttcc gatcgttctg ttgcataatt atatattgct tatgtattgt ctgtgaattg 60  
gtactaacgt ttcgtttggc tagtgcatac cgatgccgac gtatgtcgtg tacaagggta 120  
aggttcccgg agtctacgat gactgggagg agtgtctgag acaggttcac cgattcagcg 180  
gtaacagtta caaagggtag accactaggg ccgaggccga atctagatac acccgctatc 240  
tagcgggaaa agggatggac ctttggggga aacgggtg 278

<210> 7786

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-A4

<400> 7786

gggtcgacgg gccttctgc ggtgtcgtc ccataatctc atctcctgcc ctcagtatga 60  
tatgagctcc gacgagggaa ggacatgtcg gtcgcctga gcgcccttta aatccgccgc 120

gtccctctct ttggctttaa tcaggggctg attccccga tgagtcattgt aggcaataat 180  
tctgcagggc caaagcggcg gcaggcatcc acaccgcacc gcactacctg gccctaccct 240  
acgtacatac tccagcacac cgacgtacta cgatgtaccc tacactacac agtacacaca 300  
ccctaaagac ggagatcccc catgatcatc atcattagtg ctgccatgat cctctttaat 360  
ctgccgtacg caccagatat aatactgtct cctcccagt cccagttcaa gcactcgttc 420  
tgctg 425

<210> 7787  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-A5  
<400> 7787

cccggtcga cggggaagaa gagagagaag gaacaaaaga aagctgcaa gaaggccatg 60  
aagatgaaaa aggaggaaga gaagaggatg gccacactga attcctgcaa ggatgaagac 120  
agctcatgct catcggagtc cagcaacagt gagtgtgaag gggaagtcgt cggaatgagc 180  
cgctgtgcca ccatttctgc gcctcgaaca ccacctgcaa gcacagtttt ccccatcata 240  
gtgcctcaaa ttccagactc cgttgcactg gatgctcaga tctttccggt gtctgcaaat 300  
gcaatgcagt gcactgccac cagccttgct gttgtcga aaaccagtgt gaacagaatc 360  
aatgtctgca tgggcggcaa gtgcaagaag gcggtctcgc tcgctgtcct g 411

<210> 7788  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-A7  
<400> 7788

cccggtcga cggggcaatg aagaggaagg gtggctcgcc gaggcgaatg aagacgaagc 60  
ggcgtcctcc aacgataacg acatcgagga gatcaacgtg gaggatgacc gtagtgtcgc 120  
catcgggct gcctccgtgg gcgtagtcac caatgaggat gacagtatca tcgcggccga 180  
tgctccggcg atagagaacg accagatcga cacgttcgtg cctgctccg cagccaatgc 240

caacgaggat gccggtgccca ccttcctggc tgccccggtg gccggtgatg atggcagtgc 300  
ctccttcggt gctgcgccgg cggccatgga ggacgaactt gtatccatct cgtccgctcc 360  
gttggccgag gacattgatg gtatcatcat gggggctgct ccggtcgctg acgatggatga 420  
tggtgc 426

<210> 7789  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-A9  
  
<400> 7789

cggggaagcg gacgttcgat gctgagacgc cgccggcgcg ggagtcggca cgcagcaacg 60  
aagcggtcga ggaagcgcg atcaagctgc tggagctgcg gcaggtgaac aaggtgaagg 120  
cgctcgctcg cgccttcgag accgtcatgg acgacaacca aagccccgcc accgccccga 180  
agccgcggt caacctccac gctgaacta cgagtacatt ccaccagcat gaagctcgat 240  
cgcgtcgacc tctccttta tcccggtac tctttaatca cccatcaacc caatttgctg 300  
tcgtcgaca cttatctata attacggtat cgcttatatt ttgcaaggag gaagatgatg 360  
gaagggttat catgatgtaa taataataat gatcatgg 398

<210> 7790  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-B1  
  
<400> 7790

ggggttgctt aatttgatga atctatggct agtaaaatag tttataaacc atagagaagt 60  
tggaatacag tagatttaac accaatacaa ataaagaatg agttaattac agtaccttga 120  
agtgggtgtt tgttttcttt cgctaacgga gctcacgaga ttttctgtta agttttgtgt 180  
tggaatttt caagtgttg gtaaagattc gatggactat ggaataagga gtggcaagag 240  
cctaagcttg gggattccca aggcacacca aggtaatat aaaggacaac caagagccta 300  
agcttgggga tgccccgat ggcacccct ctttcgtctt cgttcacgga taactttact 360

tggagctaatt attttattca ccacatgata tgtgttttgc tttgaccttg ttttaattta 420  
 attaacc 427

<210> 7791  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-032-Q1-E1-B11  
 <400> 7791

aggccgcatac atatagtaag actcactagg gaagcctccg aataagttca aaagggtttgg 60  
 aaaactgcaa agatttggtta aaaaggaaaa ggcctcctgt ttctcaaact gttcaactcg 120  
 acaacttgaa aaacctaacc ctacatggtg tatctctaac agaatacccc ttcaaaaagg 180  
 ttttaaacgg tttcccctta aatggggaaa accctctcaa aaggaagcca atatctttag 240  
 atatgcaccc atggatactc tctgtacaga gaacgctgga aaattacgtc gcatccgang 300  
 ccacaacaaa taagcttgcc agagatgcct tctgttcctg gcttcgcgct tacaccgccc 360

<210> 7792  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-B3  
 <400> 7792

ggccgatccg gaaaatgaat cgctatcaag gaaggcgaac ctgacctccg ttccagcagg 60  
 agatcgtgca cctggcggcg gtgctaaacg gcgaccacca gctcaacagc ctgcaggaga 120  
 ggatcaggga gaggatgaac gtgaggaag gcacctccta catgaggagc gccgtgcggc 180  
 gcttcttcca tgccggcatg tcggccaaga ggatgggcct cgccgacgac gagcagatcg 240  
 tcaagattac gcctccctt tacaccagca atgacctcct ccctgcaga ttaaagatga 300  
 tagtccgtag agagcaacca tgcatacata cataggatga acattgatgt tggaattacc 360  
 acaatttcta gtaccacaga tacaatac 388

<210> 7793

<211> 108  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-B4  
 <400> 7793

gggtcgacgg cacgggggca agggggcacc ccaaagcaca atagttgttt cttagccgtc 60  
 tgcggtgccc cctccacgtt tactcctccg gtcattattgt cgtagtgc 108

<210> 7794  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-B6  
 <400> 7794

cccggtcga cgggcagcac gaccgtgcgc aaaggtttct ttttagatta agaccatgtg 60  
 taaaccttct ttactgtctc ttgttgcttt acaccctccg gatactcaac acaaccgaga 120  
 gggatgctgg cgttgttggc atttcgccac gtcagacgaa tgcacatacc tggaaattca 180  
 gggttcatta acaagggcgt tactcagccc ggtatatgtt gtaaagtccg aataccttat 240  
 ggagtgttcg gcgtcgcgag ttgggcctta tatgcatcag ctccgaatca tgtctttggt 300  
 caatagttgg gttttcccg ctcctgtgtt ttgctacctt acgttccgct ctatcggcta 360  
 tgggtggcacc gggggaactg ctgcgattgt gccctggttc atctggatga gcacctc 417

<210> 7795  
 <211> 324  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-B7  
 <400> 7795

gatgggcaac acgatagtga gtcattgtat ctttctaaat taataccatg tgtaaacctt 60  
 ctttactgtc tcatggtgcc ttacaccctc cggatactca acacagccga gagggatgct 120  
 ggcgttgttg gcatttcgcc acgtcagacg aatgcacata cctgtaaatt cagggttcatt 180  
 taacaagggc gttactcagc ccggtatatg ttgtaaagtc cgaatacctt acggagtgtt 240



cggcgtcacg agtttggcct tatatgcac agctccgaat catgtcgttg gtcaataactt 300  
 aggttttcac ggctctcgtg tctt 324

<210> 7796  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-032-Q1-E1-C1  
 <400> 7796

gggtcgacgg ggatgaggat ggtgacttcg cggagggcga agaggaaatc tcggaaggag 60  
 aggagtatga caacccaag gccagtgcg ccaagaaga acaaataggc gagggtgagg 120  
 agaatggcga ggatgatgag gaagaacaag aggagcaaga gggaggagga ggtgacgacg 180  
 atgatgatga cgacgacaac gacgatgaca atgaggacga cgacgatgat gacgatgatg 240  
 tcgtctgctga agacgatgga gatggagtag aagaggagga tgatgacgat gaggaggang 300  
 aggacgatga ggacttgctc cagccccga agaagaggaa gaagtgaagc ccttcgaagc 360  
 ggctgcttta gttcacatgc gacgagatgt gcctgtcctt cactgtgttc tggaaacttt 420  
 ccttagagtt aaaaatgccc ccacacga 448

<210> 7797  
 <211> 310  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-C11  
 <400> 7797

tcttactaga tagtgaagtg gctgaagccc ggtgggcata tttcatcac ggagtcctgc 60  
 ttccaccatt ctggggattc caagatgaaa gtgaaccga cgactaccg ggagccaagg 120  
 ttttacacca aggtgtttta ggaatgccac tcctatgacc aagatgggaa ttcctttgag 180  
 ctttctctgg taacttcaa gtgcattgga gcttatgtga agagcaagaa gaaccagaat 240  
 catgatgtt ggctatggga gaacgtcaag tgcacagaag acaaatgcct tcagagattc 300  
 ctggacaatg 310

<210> 7798  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-032-Q1-E1-C6  
  
 <400> 7798

gacgggggaa gctacgctgg tgcgccgcgc cctcgaggcc gtgcgccgga cgccgcgctg 60  
 gcagaagagg ctcgtcgtcc tcaccgcagg agctggcact ttaagctatg cttgccagga 120  
 taaccgtgtt cttcaaatca gtgatggaac ggggggcaag aaaaagtgg ttataacttg 180  
 aactggttgg gcagggtcaa gtttcttgag aaatatcgac acttctttgt atgatgtcca 240  
 tgtggtatca cctcgcaact attttatgtt cactcctctg ttgccgagtg tgacatgtgg 300  
 cacggttgaa gcacgcagta ttgtggagcc aattcgcaat attgtgagaa agagacgtgg 360  
 tgcattcaga ttctgggaag cagagtgcta caagattgat ccaac 405

<210> 7799  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-032-Q1-E1-C7  
  
 <400> 7799

ccgggtcgac gggggatagc atacggtgat agttgtgttg atcctgctga aaatcagaaa 60  
 cttttgcgcc cagtaaatta gttttgataa ttcacagaaa cgtgggtttg atctgattca 120  
 ttttgctctg gatcggtaca caaattgctc aggttttctt aatttggtag gatttttgga 180  
 gttacagaag tattcgagag ttacaaatta ctacagacta ttctgttttt gacatattct 240  
 gttttctatg tgttgtttgc ttattttgat gaatccgtga gtagtatcgg agggtatgaa 300  
 ccatagagaa gttggaatac agtagatatt acaccaatat agaaaataaa tgagttcaca 360  
 acagtaccaa aagtgggtgat ttattttctt atactaacgg agcttacgag ttttctattg 420  
 agttttgtgt tgtga 435

<210> 7800  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-C9

<400> 7800

ggctcgaggcg attcttcatg atgatctctt tgcgtttcaa ttcttatctt ttatgtgagc 60  
atcattgaaa tcatcatgcc tagctagggg cgtaaactgt tagcgcttgt tgggaggcaa 120  
cccaatttta tttttgttcc ttgctttttg ttctgtttta gtaataaata aatcatctag 180  
cctctgggta gatgtgggtt tatgttttaa ttagtggttg tgccaagtaa gacctacagg 240  
atcttcttgg atgataatta tttgatcttg ctgaaaaaga cagaaacttt ctgctcacgt 300  
aaacaattgt taaaaatcac cagaaagcga taaaatactg attccaattg cagtagatca 360  
ataatcaaat tatataggtc ttctattttt ggcagatttt tctgagttcc agaagtt 417

<210> 7801

<211> 409

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-032-Q1-E1-D10

<400> 7801

gggtcgacgc ggatgcggag gaagacgatg atggcgaacc acgaggacag cccgcacatc 60  
cgagagaagg tgctctacgc cgtcaagcgc tactggaccg ccgacagcga caagagctcc 120  
caagagaaga aggcaacttc ttctgagggtg tgaaatataa tggtgagtga gatgagctga 180  
gctgatgcac tgcaactcag gagatcagcg tgtgtttatt tcaacttctt gtgagtttct 240  
ctcgagtgtg gcagtgagat cagcacgtgt attccttttt gattacgtcg tgtaggatga 300  
acacttcttt tccatttttt cgagatgaga tggtaggaaa tattcgacac aaagatctac 360  
gtaccatttt ctgcnegtca cagattcaag aatgttggtta tggcactcg 409

<210> 7802

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-D11

<400> 7802

gggtcgacgg gtatgacgat cattaaacgg ataatgtttg caaaagcaaa tgaaatactc 60  
 cctcagaggg agtagcatac ctttccgac ttcgaaagtt tatctgaaac tgcaaccagt 120  
 ggaatgctgc catcagtcga tttagcatca tgaagtgtga tttttggagc tgctgctttt 180  
 gccttccttg cagtagactc tgtcttcttt cgtgggtttg gtttctcatc aacggaggag 240  
 tcatcgttac tggatagctc tggtgtagca tcactaagtc gccgtgacat tgcttcctga 300  
 agttacagaa gaagatcagt tgtcattgct caggtacatg aatttcaatt gcatgtaaac 360  
 ctaagcaatt cagaataaag cagtgcataa aataagatat gccattgca caatgctcct 420  
 gattcacaca tacact 436

<210> 7803  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-D12  
 <400> 7803

gacggggatg agaattgtgt ggtgggtcac ggaactttat gtagttaaata tataagtcaa 60  
 tccattccat aatgtagtgt atatagattt ctacaatagt taaactttgc aaattttgac 120  
 aatgcttcgt gataaaaata tttatattta aaataccaaa tgcataatac tggatacatc 180  
 atgagttaac tattcatatt atatatgttt gacattgtac atatagatag tttgttcata 240  
 aacttagtca aagtttggtta agcttaactt ttcaaaaaaa tccttttttg cggtaaatta 300  
 tggaacggag ggagtgttta gaattgcaat ttgaagttac acataagggtg ttttccttgg 360  
 agttcacgat tagaacgtaa aacagaatgt atcacctgt c 401

<210> 7804  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-D2  
 <400> 7804

gggtcgacgg gtcgtgcgat ggtgtcggca aacgatggcc tcagtgggtg gacgccgaca 60  
 catgcagctg gtgcacgatg gtgacttcat ggagctcatg ttccaagcaa ccctctcctt 120

gttggctcag gaggttcgcg atcgagcttg ggctgctgat acctcttctt cgccgcccac 180  
caggaatagc atgagatgag cagccaatcc ctcatctcta gctttcatac caagattctg 240  
tgcaccggtt cccctacggt tgaagatgga gagccattgg tagtagagag ggggaaggga 300  
tgtagagacg gaagcagctt cacttgcccc gtctcccacc ccattgccga tgcagcggtc 360  
gaaggagtgt cggacctcgc caacaagcct gtgacctgc atcagcgatg gcttgatgta 420  
cgcactggaa acctccta 438

<210> 7805  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-D4  
<400> 7805

gggtcgaggc gatggaccaa aaagtctaag gtaaactact cacacttcat cgaagaggct 60  
atgatgatgt agaagccctc catgatgatg gccctcctcc ggcggagctt cggaacaggc 120  
cctaagatgg gatctcgtgg atacagaaag ttgcggcggg ggaattacat ttttggctcc 180  
gtatctgttc gtttgggggt acgtaggat atataaggagg aagaagtatg tcggtggagc 240  
tctgaggggc ccacgaggca ggggggagcg cccccaccc tcgtgaccgc ctcttttgtt 300  
ccttggcgta nggtccaagt ctctggatt acgttcgggt agaaaatcac gttcccgaag 360  
gttttattcc gtttggactc cgtttgatat tctgtttctt cgaaacactg aaataggcan 420  
aaaacagcaa ttctgggctg ggcctcc 447

<210> 7806  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-D9  
<400> 7806

gatggaaaac atggtgtcca atgaggaatt caatgtggcc ttggatacat tgaaaacatc 60  
aatgacaacc acggtagaaa gcatgtttta taaattctta gaaggactta aactacctac 120  
ctcgtcgttg aaagtgggtg atcccactaa caaggtgaca gatgctaact ctgacaaggg 180

ggaagctaag agtgagaagg gtccttctac tagtggtaga atggcaccga catctttgcc 240  
catgtagaac ctccaactta tggaggaccg attccctcta ctcatTTaaa tcatgccggT 300  
cctcctaaga ttgtgaaaaa tgaggatttt gattcttggg tgtatcgctt caagcgTcat 360  
ttaaTcatg tgaatactaa tctttggaga atcat 395

<210> 7807  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-E1  
<400> 7807

cggtcgacgg gaggcggTcg cggTacacat agcgcgacga cgacgacgat gatgagagga 60  
agccgcggTa caagaagcac gacgacgacg atgatgacca cgagaggagg ccgcggTaca 120  
agaaacgtga cgacgacgac gatgatgacg atgacagaaa gccacgTtac aagaagcgct 180  
acgacgacga cgacgatgat gataggaagc cacgTtaca gaagcacgat gatgatgatg 240  
acgacgacga tgataggaag cagcgTcgcg ggaacaaccg ccgccgccac gatgacgatg 300  
actgattatg acatgagTtt aagctgacgc taataagcat agTtgcggcg gctttgcacT 360  
gatgaattac gacattTcac tttttttcca agcattttTc atttcgctgt tcactggcca 420  
catgcttcca atcgTatgct cgagcttct 449

<210> 7808  
<211> 312  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-032-Q1-E1-E12  
<400> 7808

acgcgctgat gaatatgggg ccgcactaca tgatgaagac cgagTcacgc gtggatgtga 60  
agacaggccg catcgTgaat atcaccggcc atcgcatcaa tgccgatcat ctcacagggt 120  
cctcactgca gatgtcctac catcagccca gctacacaca tgtgcatcac gtcaaccatt 180  
cgctagctgg ctTactctac agtatgcaat catgcatgtt ccgTcgatgt actTcatcaa 240  
ccttaattgt caatgggaca ctcaTttat actgctcaag tcacgtagca gtagtgtgcg 300

atactcacao ca

312

<210> 7809  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-E2  
  
<400> 7809

gggtcgacgg gagggctcaa gatctgtgtt cggagagggg aattcttgag gtcggaatcg 60  
gaacaagcgg gcgcgctcgg gatcgggggtt accatacaat ttttcccagg aaccttttagt 120  
gaatgtgcta atggagtcaa aggggtggcaa aaagtctagc agtagtagtt ccctgatgta 180  
cgaagctccc ctcggttaca gcattgaaga cgttcgacct gctggaggcg ccaagaagtt 240  
ctctgctgca tactcgaact gcgcgaagaa gccatcctga tatcgttttt ggcatcccct 300  
tcccgtagtt taggattttt atgcaatttt attctgactc ttttctcnca ccaatctctc 360  
tggtttgctg cttcacgata atcgaccagt tctctagtct ttctcnctct gttectctct 420  
gctctgcttt ctgactcaaa actgcaacaa tgg 453

<210> 7810  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-E3  
  
<400> 7810

gggtcgagcg ggatattaca gtagaaacaa cgcaaaaaca aaatatgaat tggtttgcaa 60  
cagttcttag agtagtgatt tgctttatta tactaacgga tcttaccgag ttctctgttg 120  
aagttttgtg tggatgaagt gttcgatgat cgagaaggtc tcgatgtgag aagaaggaag 180  
agaggcaaga gctcaagctt gggatgcccg aggcacccca agtaaatatt caaggatact 240  
caagcgtcta agcttgggga tgccccggaa ggcatcccct ctttcttcaa caagtatcag 300  
tatgtttttg gatttgtttc gttcatgcga tatgtgcaat cttggagcgt attttgcggt 360  
tagttttcat ttttatttta tgcacatga cggtatgata tagtccttgg ttgtttatag 420

aatgctcatt gcacttcact tataatcttt

449

<210> 7811  
<211> 440  
<212> DNA  
<213> Triticum aestivum -  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-E4  
  
<400> 7811

tatgtcgtgt acaagggttaa ggttcccga gtctacgatg actgggagga gtgtcggaga 60  
caggttcacc gattcagcgg taacagttac aaagggtaca ccaactanggc cgaggccgaa 120  
tctagatacg cccgctatct agcgggagag gggagggagc attggaggaa ccggatgaag 180  
acgagtttca tcgtgatgat gctcatcgtg atgacccag ctctcttcta tgtgatggta 240  
gttttagatga tcgatatcga cttgtaatgt gaagacaaac tcgctactcg cggctctcgag 300  
acttgtaata taatgttcta tctctgttcg gtcttttcaa ttcggagact aatatgatga 360  
attgtattcg gagactaata tgatgaattg tattcaaaga ctaatcttct attgtattcg 420  
atgaatctgt tgttgatgtg 440

<210> 7812  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-032-Q1-E1-E6  
  
<400> 7812

cccggtcga cggggaagaa tgacgaagac acagaagaag aagaaaaaga agaagaagaa 60  
gaagaagaag aacaagaaga acaagaagaa caagaagagg aggaggaaga agtagacgaa 120  
gaagaagagg aagaagaaga agacgacgaa gaagaggaag acgaagaaga agacgaggaa 180  
gaagaagatg aagaagacga agacgaagaa gacgaagaag aagaagaata agaagaagaa 240  
gaagaagaag aagaagaaga agaagaagaa gaagaagaag aagaagaaga agaagaagaa 300  
gaagaagaag aagaagaaga agaagaggcg attgaaaagc aaacggaaga aatacagaca 360  
gatgagcaga aacatgatga cagtagggct gatttcacca cagagacaat attggagccc 420



cagagcaacg anattgacac aacaaatagg aaagacaacg ctga

464

<210> 7813

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-F11

<400> 7813

gaacgtgatc accatcttcg aggaggaagg cgggcgccg gacgccatca tgatcctgac 60

ggtgaagcgc gacaacatct gcagcttcat ctcgagacc aaccccgggc acttgcggtc 120

gtgggagacc aaggacagcc agctgacgat ggtggcgac gacctgaagc cgcgggcggt 180

gctgacgtgc ccggagaaga agttgatcca gcaggtggtg ttcgccagct acgggaaccc 240

gctggggatc tgcggcaact acacggtggg caaatgccac acgccaagg ccaaggagat 300

tgtggagaag gcgtgcgtgg ggaagaggag ctgcgtgctg gccgtgtcgc acgaggtgta 360

cggcggggac ctcaactgcc cgggcac 387

<210> 7814

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-F12

<400> 7814

gcgcaaagag agacgcttga ttttgaaca acagctagct tcttctcaag ttcctaggga 60

ggagcagata aaattgataa aggagttgca gaggaaggag actgaatata tgagacttaa 120

aaggcataga atttgtgtgg atgactttga gctgctcacc atcattggaa gaggtgctta 180

tggggagggtt caactatgcc gggataaatc ctctggtaat atttatgcaa tgaaaaaac 240

taaagaagtc tgaaatggtt gtcaagggtc aagtggagca tgtagatct gaaagaaact 300

tgctggctga agttggtagt cactgcattg tgaagctata ctattcttcc caagatgctg 360

agtatctcta tcttatcatg gag 383

<210> 7815

<211> 395

<212> DNA

<213>      *Triticum aestivum*  
 <223>      Clone ID: LIB104-032-Q1-E1-F2  
 <400>      7815  
 cgtaatactt acgtggacga gcacctgatg tgcgacatcg agggccacca cctcgccctcc    60  
 gccgccatcc tcggccacga cggcaccgtc tgggccaga gcgccgattt cccgtcgctc    120  
 aagccggcgg agatggccaa catcatgaag gacttctacg agccggggac cctcgccccg    180  
 accgggctgc tactcgaga cgccaagtac atgggtcatcc aaggtgaacc tggcaccgtc    240  
 atccgcggca agaaaggccc gggaggcatc accctgaaga agaccgggca ggctccggtg    300  
 gtccgcatct acgacgaccc catgacctcg gggcaatgca acctggctgt ggagacgccg    360  
 ggcgactacc tggtagagca gggcatgtcg acgac                                    395

<210>      7816  
 <211>      447  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      Clone ID: LIB104-032-Q1-E1-F6  
 <400>      7816  
 attcccgggc cgacgggtca ctcaatctct ctctctctct ctctctctct ctctcttttt    60  
 tgagggactc attccttctt cttaattctg ctagtcagtg gcagaaaact ctttgtggaa    120  
 gggaaatccc atgcggctgt agccaaatag cgctattaat tttccttgaa ccagataagt    180  
 gtggcgtgct ctcaattggt gtaggagatg ggatcatag gacttgtatt tgtaatttgt    240  
 tttatttttg aaggtagcta caagtaaatt gaaatcttgt tcatttcttg ggtgtgacaa    300  
 gtgctcagtt gacttagatt tgggtaagtc taagtcgggt gatatcagca tgtttctacg    360  
 ttatttttct atttttatgt tttctacat ttttttaagt gcagggtgaaa aaattaagaa    420  
 tttaaataatg ttttcgcctt ggaaaaat    447

<210>      7817  
 <211>      414  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      unsure at all n locations  
 <223>      Clone ID: LIB104-032-Q1-E1-G10

<400> 7817

gtcgacgcgc tccttaacat gtagtctcaa aatcgtagtt agattttggt acgttaaacc 60  
aggttgctta tgtcatgtgt gtcatgggtg aaccagtttg attatgtcgt gtttggttagg 120  
gttgaacaag tttgtttatc tcatcaagta cattgttttc ttatctcatt atataagttt 180  
gctagcttcg tattttgttt atccatcatt tcaaattcaa gtagcttgcg agtggaactt 240  
tgtggctgct gttcagtact agttatcaag caactattca cacaagggtc ttccatgtgt 300  
agtttggtt cagcattgta tggaaaacat aacgttgaaa acaatcagta caatttgagc 360  
tgcttagcag cgcttcanaa gttgaagtaa tttnttttag tacttcatgt actg 414

<210> 7818

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-G11

<400> 7818

gtattatcat ggttgagttt tgttacgttg atgcagggtg cttagggtcat gtgtgtcatg 60  
gttgaaccac tttgattacg tcgtgtttgt taagggtgaa caagtttgtg ttatcgcgtg 120  
aggtacattg ttgtctgac tcattataca agtttgctag cttcgtagtt tgttttagcca 180  
tcatttcaga ttcaggttcc ttgcgagtgg aactttgtgg ctgctgttca gtactagtta 240  
tcaatgcgac tagtcagaca gaggtcttcc atgtgtagtt tgggctcagc attgtatgga 300  
agacatagcg ttggaaacag tcagtagag 329

<210> 7819

<211> 368

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-G12

<400> 7819

gtcctactaa caaggcaaga gatacctcga ttgccttcgg aggcacgctc acggtgtcat 60  
gtggccattg ccaccctgat attgtcaagg ccgtgcagga ccagaccaag ttgcttcagc 120  
acaccaccac catatacctg catcatgcca tcgtcgagtt tgccgaggcg cttgcctcca 180

agatgccagg caatctcaag gttgtgtact tegtcaattc tgggaccgaa gcgaatgaac 240  
tagcaatgtt gatggctcgg ctgtacagcg ggaatctcgg tatgattgca ttgagaaatg 300  
gataccacgg tgggagtgtt ggaacaatag gtctcacggg tttgcagacg tggaagtacc 360  
cgattcct 368

<210> 7820  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-G4  
  
<400> 7820

tggttttagct tacatcggat atgtaaatcg agcagtaaaa tattagacac agttgaaactt 60  
agactacctc catactccta tgattctgag gctgtttgga tacgaattcc acggtcagca 120  
aaaatagctg tggaggaaag gaaactagag tttcgtggtg gttcacatgc tgcttcacac 180  
gcactcttga atatattgcc tctgcatatg atgtgtagtg cttctgacct ggggaactgag 240  
tgcgtaaadc ctcataaac ccgtggtatg cctgaaagaa ttcttttata cgataaacac 300  
ccagggtgga tcggcctggc aacgcaggtt aaaaaacttt ttgggggaact tctgcttgct 360  
gcttttagagc ttgtttcgac atgcagttgc cctagtgtct ctggctgtcc gaattgtatc 420  
caatcattga catg 434

<210> 7821  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-032-Q1-E1-G5  
  
<400> 7821

gcgggtcgat gggagtccca aagtgggtata gatctatgaa ggataaaca agaaaaaat 60  
tccatgaaga tcattggaca aaataaactt tattcttagt aatagttttg agatatgatg 120  
atgtgatatg tgagttatgt tgatgagtaa ttgtgctcta gtaagaatat tgggtgtaa 180  
gtttgtgatt ccctatgcat gcacgaaagt caatagtcac gcagtgaata ttatgtccta 240  
cttgtgggtgc attatttggg gtttaattatg cttaatgctt gcttatgaga ttattcgttt 300

cttgggttggt cttttcccaa acttttgcta accttcattt tgcactaagt atgacctcta 360  
 cttgtgcttc caaaatcctt taaaccagtt ttgccacatg agttcactat atctacctat 420  
 atg 423

<210> 7822  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-G6  
 <400> 7822

gacgggggag ccaatgaggg ccactctcga cacgctgccc ccacacacac acaccacccc 60  
 ccggggccgag atcgtcttcc tcgattcaac gagagttgga agcgggatag ttcttggggc 120  
 accggaagcg tcgcacgcat ggcagatgag gaggtatctg acccaaaggc actcctagag 180  
 gatcgtacga aggctaagtg tgtctaccac tggatgaat atcagaaatg cgttaagaga 240  
 attgaaggtg atgagaccgg gcagaagcac tgtactggcc agtacttcga ttactggaaa 300  
 tgcacgcaca agcatgttgc tgagaagctc tttgatagct taaaatgaca aggaaattgt 360  
 tctctctagc tacttttcac tcaacagtgg taataaatag tatcacttgc acgccttatt 420  
 ga 422

<210> 7823  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-032-Q1-E1-H10  
 <400> 7823

tggatcagta atactgacac acacagtact caaaggattt ataacaaagt gcaatcacac 60  
 acttattaca tcgaatgtct caaaagagaa cttattacaa aaatatggct taaggccaac 120  
 taaataagat aactgcggaa gcatcgaaga taaatgagtc catcaactcc aatggcatag 180  
 ctgagtgcac gacaacgacc tagcgacact tactcttcgt ctgaaaagtc tgcaacataa 240  
 tacgttgcag cccgaaacgg gtcagcacat ggaatatgct ggcaagataa cactgtagag 300  
 caatgaacaa tgaacaacta taactatatg catatatggc tgggtggaggc tctatgggta 360

tttatgcaga aagctaattt ttccctataa ca

392

<210> 7824

<211> 341

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-032-Q1-E1-H11

<400> 7824

gtcaaaaata tcgggtcgac gcggttcaga taagaaggcc ctgtaggttg ttcttgtagc 60

tgcattcgcc gtgtcagcgg ccaggcgacg cggaggggat gaagggcaga gagagaacat 120

gtttctgtct angtcacact gcttacttan gggaagtgga gggcccgaca gaaggcatgc 180

aaatattgaa gagggccgag actaatttgt taactgtgat tttaaggttt atcgtctgtt 240

tattttctaca attttatttc aactttctat acatgcatac atgcaaaaata cgcaagtga 300

catgtgtgca attttccccg cgccgatgaa aacattttta g 341

<210> 7825

<211> 427

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-032-Q1-E1-H2

<400> 7825

tatacgactt cttccctaac gacgagaaaag tggggatgaa gcacatcaag aagtagcttg 60

aaatgatgaa cgccgagaaa gtctcaaggg ccatattggt.tgtgcaacag aacctcacc 120

catttgcaaa atcttttctt caagaactgg agccaaagat ccacttggag gttttccagg 180

atgccgaaat gcttataaat atcaaggaac atgttctcgt tccggagcat caagtgcctg 240

ctaacgagga aaagaagacg ttattggcgc ggtacgcttt aaaggaaact cagctaccaa 300

gaatacaaat tacggatccc attgcgaggt actacngcct caaacgaggg caagtggatga 360

agatcatcan ngccagcgag acagccggca gatacgtcac atatcgctaa gttgtatgac 420

agtacac 427

<210> 7826  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-032-Q1-E1-H6  
  
 <400> 7826

cgggccgacg gggattatca atttaaaacc tgtgtctttt tctttttttt cctagtttgt 60  
 attctgtttc tttttcattt tctcgttttc ccttttttat tttccaaaaa tgcttattct 120  
 tttaaaattg gttcaaaatt ttaaaacacg tttgtttttt caaaatatgt tcaaggaatt 180  
 aaaaatattt ctatttttaat aagttgtaga actagtgaat atgtttgtat cttaaaaatt 240  
 gctcacattg aaaaaagacg aacattttta aaaagagcga acaaaattta gatcatggtt 300  
 ttttttgaat gtagaaaaga ttagaaaacg ggaacatttt ctaaaattct gaacaaattt 360  
 tgaaagcatg agcattattt gaaactcctt gaatttttta acattgaact tttctgaaag 420  
 ccatgagcgc ttggctggcc gaacgggtgc ctg 453

<210> 7827  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-032-Q1-E1-H8  
  
 <400> 7827

gggacatgct agatgacgtc attgttgacg aaacggcaaa tgcgacacct tcagagaatg 60  
 aaccagagga gccggaggca accgcaaagg cttttttgga ggtcatggcc tcgtcgaaga 120  
 aacctcttta tgcgggtgcg aaaatatctc agctggatgc catctcgcaa ctgattgcag 180  
 tcaaggetga gtacggctgt agccagaaat gcttcgaagc attcctggga gtatgggcta 240  
 acagcctccc tgagggtcat gaactgccga aaagcatgta cgatacaaag aacatcatga 300  
 aggcactctc tatggattat gacaaaatag atgtttgccc gaagaattgc cttttgttta 360  
 ggcacgagta tgcggatgac atgtactgt 389

<210> 7828  
 <211> 57  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-032-Q1-E1-H9

<400> 7828

gtcgtattac gagcaagatc gtcggcttcc tgactatacg cttcgtcggc acgtccg 57

<210> 7829

<211> 168

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A1

<400> 7829

cggggagcga cagcgttttt atgtgcattt gtatgcacga cttgttgagc acgacatggg 60

catgaatgca tggtcgggtga tttgcttcgt cgatgttcat accgacttct acatcatgag 120

atctgtacag ttcatgtaat catgtgcacc tttctgtgag aactctgg 168

<210> 7830

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A10

<400> 7830

attcgccggg cgacgggggg caagaagagc agcacatgat agcttttccc cacggatcct 60

tctcgtcttc cagtgattc aagtcgtctc gcctctctcc gtcagcccaa acatggacgc 120

aagcacgcgc ccgagtggaa gccaccaatt gcctgctgca gaacaagaag ctgagcagct 180

tgtaaatgct gctagggctg ctaaaacggc gaggcttacg caagccacat aagaggctga 240

gagagaaata gctgagtacc gtgcacaaat ggaggctgat ttccagagga agtcaccga 300

gaccagcggg gactctggcg caaacgtcaa acgccttgag caagagacaa acgtaaagat 360

tgagcagctc aagcagcagg cagcaaacat ctctccagag gtgattcaga tgcttctgag 420

gcacgtcacc actgtg 436

<210> 7831

<211> 426

<212> DNA

<213> Triticum aestivum



<223> Clone ID: LIB104-033-Q1-E1-A11

<400> 7831

gtcgcagggg cagtctttgt ggtgttcacc atgacctga acgtgtactt ctacatgtac 60  
tacacgaaat cgacgcgcca ggccgcaaaa aagaccaaca aggccaccgc caatgtcggc 120  
atggctggct acgcatgacg agggagaagg actctggttt gatggaactt gcttgagtgc 180  
tggatttaga tagatattct ggagcagaac gtagtagttt ctggaaaatg tagcgtgtgg 240  
tatggctctc tatgatcaga tcagatgtgt ttgttcaggc ctagttctcg tcttgccctga 300  
tctacagaat atttgatgtc caagacagcg gcattgtgat actcctagat ccaagttgtg 360  
agagtgcgca tgatcatatg agaggggtga accggatggc cactgccaa cgggctaaga 420  
atTTTT 426

<210> 7832

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A12

<400> 7832

attcgccggc cgacggggag gaggaccgc ccagggccaa gccctggct aaatcgtaag 60  
tatccggata cccgagtaat tcatactatt cctttgttgc acagctttcc cttatgtcga 120  
atatgtttat gtagccaccc aaagaccgc tcgatgcgtc gtcgagcggc tccactggact 180  
cgtcggatgt gaattcgctt ccgacggctt cctccccccg ccctacggac gacactgaag 240  
tgttgtccca ataggttcca atccaggagg aggtggctct ggaggcgccg caaggtgacc 300  
tcccggaccc caggagtga ggggacagaa cccccaggc ctccaagtcc ggccttaggc 360  
cggacaccgc tccggaacct tcaaaggctc cagagtccgg cgggcgacct ccttccaaga 420  
ggatcaagcc caccgtgccg ggga 444

<210> 7833

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A2

<400> 7833

cggggtcgacc ggctgtgcag aagaaaaccc ttttttttag gaacagaaga ttgccctttt 60  
actctcctag taggaatatg tatgtgaatc accacagaac accccctaca gcacaaacta 120  
ttttacataa ttacatttca cttttcacct tgcacgattt cctctgtgat ttccccata 180  
tatgacttgt ctgttttgtg aggtatggta gtgctcacat aattttcttg tattggacga 240  
tgatgctata ggtgtcgagc tttgcgatat atgatgatca actgcatgca tagaaagata 300  
tagcagttga tttgcttcat agtatgttat tgctaggctg ctagttttgt gtcactcagt 360  
caagtaggtt atcatatgct tttagtgttt gcgagctatg tgcataatgta tacata 416

<210> 7834

<211> 363

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A3

<400> 7834

agctcaaadc gaagaaaaac tagacaagat gcagcacaac gacgatgata atgtcgactg 60  
cggcgttggt ctcgatgtg tacagaataa ttctctgcta tcaggtggta ataacgcacc 120  
ggaacggacg ctgttcttga tgcgcggaat ggcaaggcaa agcattcttt caccgagcaa 180  
tggtgattga cgacttgatt acagacaaga tagatttggc acattcttac ctgtaaagat 240  
aatttgccaa ataaagccgt ttataagctt tgccactttg ataattctct gtactgacac 300  
aatttgaaag aattcctttg acaaaaaaaaa aaaagacaaa aaaaaaaaaa aagcggccgc 360  
tct 363

<210> 7835

<211> 352

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-A5

<400> 7835

cgatcccaag gcatttggtta aactaaaaat cattggagat tgcaccgtgt aatacaaagg 60  
gtttgtgact tcggccaagc caagtgtatc atgtacatac cacggatttc ccgaacatca 120



Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																											
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000	1,500,000	1,550,000	1,600,000	1,650,000	1,700,000	1,750,000	1,800,000	1,850,000	1,900,000	1,950,000	2,000,000	2,050,000	2,100,000	2,150,000	2,200,000	2,250,000	2,300,000	2,350,000	2,400,000	2,450,000	2,500,000	2,550,000	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000	2,850,000	2,900,000	2,950,000	3,000,000	3,050,000	3,100,000	3,150,000	3,200,000	3,250,000	3,300,000	3,350,000	3,400,000	3,450,000	3,500,000	3,550,000	3,600,000	3,650,000	3,700,000	3,750,000	3,800,000	3,850,000	3,900,000	3,950,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000	4,300,000	4,350,000	4,400,000	4,450,000	4,500,000	4,550,000	4,600,000	4,650,000	4,700,000	4,750,000	4,800,000	4,850,000	4,900,000	4,950,000	5,000,000	5,050,000	5,100,000	5,150,000	5,200,000	5,250,000	5,300,000	5,350,000	5,400,000	5,450,000	5,500,000	5,550,000	5,600,000	5,650,000	5,700,000	5,750,000	5,800,000	5,850,000	5,900,000	5,950,000	6,000,000	6,050,000	6,100,000	6,150,000	6,200,000	6,250,000	6,300,000	6,350,000	6,400,000	6,450,000	6,500,000	6,550,000	6,600,000	6,650,000	6,700,000	6,750,000	6,800,000	6,850,000	6,900,000	6,950,000	7,000,000	7,050,000	7,100,000	7,150,000	7,200,000	7,250,000	7,300,000	7,350,000	7,400,000	7,450,000	7,500,000	7,550,000	7,600,000	7,650,000	7,700,000	7,750,000	7,800,000	7,850,000	7,900,000	7,950,000	8,000,000	8,050,000	8,100,000	8,150,000	8,200,000	8,250,000	8,300,000	8,350,000	8,400,000	8,450,000	8,500,000	8,550,000	8,600,000	8,650,000	8,700,000	8,750,000	8,800,000	8,850,000	8,900,000	8,950,000	9,000,000	9,050,000	9,100,000	9,150,000	9,200,000	9,250,000	9,300,000	9,350,000	9,400,000	9,450,000	9,500,000	9,550,000	9,600,000

<400> 7838

<210>	7839
<211>	440
<212>	DNA
<213>	Triticum aestivum

<400> 7839

<210>	7840
<211>	414
<212>	DNA
<213>	Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-B2

<400> 7840

gggtcgaccg gcacaaggag aagaaggaca agaagaagaa gaaggacaag aagcacggcg 60  
agggccacaa ggacgacgac ccaccacaac accatcatcg catcccatta gcatcgccag 120  
tttccttgga gagaagtagc cagaaacagc agcgccatgg ccggcatcat gcacaagatc 180  
gaggagaagc tccacatggg cggcggcagc gacgagcaca agaaggacga ggagcacaag 240  
aagaaggacg gggagcacaa gaaggacggc gagcacaaga aggacgggga gcacaaggag 300  
ggcatgatgg agaagatcaa ggacaagatc agcggcgacg gccacggcga cggcaagaag 360  
gacggcgagc acaacgagaa gaacgacaag aagaagaaga atgacaagaa gcac 414

<210> 7841

<211> 351

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-B3

<400> 7841

tcgaggggtg gtttagaatt tcgccgggct tcgttcgctt tacaaataaa ccggaaaata 60  
aagccccgta ggagacagag aaagggcatt ttcgtacccg atgctcatct tttggctgtg 120  
attatgaaac catcattcgg aacaaatctt cagttgtgga ttaaatacgtt ctgtagtgat 180  
ctttcgggct gtttattttt tcttttcctc tttgaatgtg ctgtagtggc cttattacat 240  
catcgtatctt gtcttcgaga acaaaaaaaaa aaacaataaa aaaagaaatt actgcagcac 300  
aaaaagatac aaaggtgaaa taagacgata aatgaaaaaa cataaaaagc t 351

<210> 7842

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-B6

<400> 7842

gtaccggacc tacattcgcc ggtcgacggg gatggactct tttcggcgga gtccgggaag 60  
tgaacacggt ttttgggtta tgtttgacgt aagtatgagt ttaggatcac ttcttgatca 120

ttgctagctt cagcactgta gcgacccgac ccgaatggat cgaatatcta tgcttaagtg 180  
 tcatccctgg atcggtatgc tgacacatac agtactcgag gatttataac agaggtaaatt 240  
 cacatgtata aagtaacgta aatattatta cctcgaatac aaatagcgga agtaacaagg 300  
 ttgtggattc ccatcaacac caacgacaaa gttgagtgtg gaaaccgtaa ccctaacgta 360  
 tcacttactc gtcgtaagat atcttgcaac atgagacggt gcaaccatgt aggtcagtac 420  
 attcaatgta ctggcaaatt cacaccatag 450

<210> 7843  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-B7

<400> 7843

cggcatcagt taaagcaatt ggtgtctcag aaggcggaca tcgccgagag gatgatcatc 60  
 cccttggtgg agctacaaaa ggcaacaaac aattttgaca aagctcgga gattggtgga 120  
 ggagggcatg gcacggtcta caaagggatc atgtcagacc tgcattgctg ggcatcaag 180  
 aagtccaagg tcgcgatcca gagggagatc gacgagttca taaatgaggt agccatcctc 240  
 tcgcgatca accatcgaac cgtgggtaag ctctttgggt gttgccttga gacggaggtg 300  
 ccgttgctgg tgtacgagtt catctccaat gggactcttt accatcatct tcatgtccaa 360  
 gaacccgcgc catccctagc atgggaaaat cgggtaagga tcgcaaccga aactgc 416

<210> 7844  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-B9

<400> 7844

gtcgacgggg catggaggag gtcaagactc ggctccaagg gaagatcagt gattggtacg 60  
 aggacgagga ggccaagacc cgcgccaagg ccgtctccaa ctccaagccc ggcaccgttt 120  
 ccaagctcaa gtccgtctcc atctccaagc ccaagtccaa gatcgggtcc gccaccagct 180  
 ccgccccggg ctccgggtcc aactcgtgat aggtgatag gttttcatat ttgatagctc 240

tttatatgtg gttgaggaga gactgcatat tatgtttgat tgcaagcttc gagtcaactca 300  
 ttatgatagc tctttagtta tatgatcttc ttggtattgt ccaactgtaat gtatggcgcg 360  
 taacatattt gacctgctat agcttaattt tcatgccttg cc 402

<210> 7845  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C1  
 <400> 7845

gggtcgaccg ggtatatcaa ttcatttctg ttgattgttt cctctgcac ttgcttattg 60  
 ctgtgcaatc atcagaccag ctggacgagg cttgtcctgt tttgactagg atagttgaca 120  
 atggaagaaa ttgatatggt gttgagctat tagtaggaat gcaatagctg aattacagcc 180  
 ctcttgattt ttttcgatat tggttcgatg ctaaaaatag tacacaacct aacagaaaga 240  
 gaagaattgc cctctgtaat tcagcatttg ctgctctgtt ttcattgttg cctctgcac 300  
 ttgcttattg ctgtgcaacc gtcatactag ctgaccagg tttgtcttgt tttgactaga 360  
 ataattcaca atggaagaaa ttgatatgat gttcctccga ttattagagt gtaacggctg 420  
 aa 422

<210> 7846  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C10  
 <400> 7846

acgggagaag gaaacaaaga aagctgcaaa gaaggccatg aagatgaaaa aggaggaaga 60  
 gaagaggatg gccacactga attcctgcaa ggatgaggac agttcatgct catcggagtc 120  
 cagcaacagt gagtgtgaag gggaagtcgt cagaatgagc cgctgtgcca ccatttctgt 180  
 gcctcgaaca ccatctgcaa gcacagtttt ccccatcata gtgccacaaa tctcagactc 240  
 cgttgcaactg gatgctcaga tcatttctgg gtctgcaaat gcaatgcagc gcactaccac 300  
 cagcattgcg gttgtcgaaa aaccagtgtt gaacagaatc gaggtctgca tgggtggcaa 360

atgcaagaag gcgggctcgc tcgccgtcct gcaggagttt gagacggtgg ttggcacggg 420  
cggcttgg 428

<210> 7847  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-033-Q1-E1-C11  
  
<400> 7847

gggtcgacgg gaggtactaa gaggcgcac cggtcacgtc gcctccgcag gcgccggtgc 60  
agctcacgcg ggcgcgcac cgggcgcac agaccgtgca gcagctcata ggagagccgc 120  
tgagggagga tgggccagtg cttggcgatc actttgatcc gcttcctcct ggtgcattcg 180  
gagcgcctat gcctgttggt ccagagcagc ggaagcagcc ttatcgatca catgagacca 240  
gtgtattttc tgcacacgat cccaagcca tgaaggcatc agcattcttg ccaagcatag 300  
acccttctgt ttcaagtaca gttaccggga agaggaagta catgtctgga aattcttctc 360  
atcttccttc acgggcagta catgagtacc agtttcttcc agaacacact agcgatatat 420  
atgagagaac 430

<210> 7848  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-033-Q1-E1-C2  
  
<400> 7848

cgggtccacc ggcatgcatt acatatgata tgtgccctct ctctctcacg cacacacgca 60  
tcctcacgat tcatgactct cctgagtcct ctgcaccca gcgtctaact gtaggtagac 120  
gtcacacaca tatgtgctat tcacacccta ccctcagaac ttctaaaaaa taaaagacgc 180  
cgcacacctt ttattttaac tcacacgtca cacatttata ctagtactgt tgtggcgaac 240  
attctttggg cgtagtatat tgtactctca cggagagaag cagtgcacgc acacactagt 300  
tctctcacag ccactcgga gtacacgtag gagcacattt tttgaagcta ggagcgcatt 360  
tgtttcaaaa gaggcacccc aattgacatt ttgactagtc tagttttcaa cttgatagag 420



ggtcgaggac cgcacatg

438

<210> 7849  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-033-Q1-E1-C3  
  
<400> 7849

cgggtcgacg cggcatcgag tagacactgt tattgtgaga attcttaatt caagagttat 60  
agggagggac ttatgtcacc acaaacagaa actaaagcag gtgttgatt taaagctgg 120  
gttaaagatt ataaattgac ttactacacc ccagagtatg aaactaagga tactgatatc 180  
ttggcagcat tccgagtaag tcctcagcct ggggttccgc ccgaagaagc aggggctgca 240  
gtagctgccg aatcttctac tggtagatgg acaactgttt ggactgatgg acttaccagt 300  
cttgatcggt acaaggagc atgctatcac atcgagcctg ttgctgggga agacagccaa 360  
tggatctgtt atgtagctta tccattagac ctatttgaag aggggtccgt tactaacatg 420  
ttt 423

<210> 7850  
<211> 308  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-033-Q1-E1-C4  
  
<400> 7850

cggtcgacca tccgggtccg ccggagacag cgatgtataa ggtggagtag aaggatgcg 60  
ctgctggagc ttttctccct ccgtgcaccc aagaagcctt tgtgcaaat ttgaaccaga 120  
cattgctttt gtagaattgt tgttgcttag tattacgatt ctagcagtag cgctcgcttt 180  
atatatcccc tactttotaca tgtactcaat tgtacatagc tcgcccccat ttgtactcgt 240  
acgatcttaa agaattatcg tcagagctaa ttgggtgatca tcgtgtacat gctgtttgat 300  
gcttaaaa 308

<210> 7851  
<211> 436

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C8  
 <400> 7851

attcgccggt cgacggggcg atggcacgac gctatgggcg gcataacgga tgacctcttc 60  
 accatgatta acattcttca aataccaaat taacattttt tggatacatg gtcaacattt 120  
 tttctataca gattttacat tttttaaatg gttgattaca tttagaaata caagttaaac 180  
 attttttaat acatgggtcaa cattttttgc atacgcattt aacattttta actgcttgat 240  
 taacatattt catatattta tttattttca aatgcttgga ttaacatggt ttaaatacat 300  
 gatcaacttt tttcatacac attgtatatt tttgtacaca ttttctctat acacataata 360  
 tttgtcaaat gattgattaa cattttttgg aaatgttttg atgtagatta tttttgtaat 420  
 atgtttatta atagta 436

<210> 7852  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-C9  
 <400> 7852

gtcgacggga ttattgtatg agagaacttg cactagtgaag agtatgaacc ctaggccttg 60  
 tttcaaagca ttgcaatacc gttttcgctc acttttatca ttagttacct tgctgttttt 120  
 atattttcag attacaaaaa cctatatcta ccatccatat tgcacttgta tcaccatctc 180  
 ttggccgaac tagtgaacct atacaattta ccattgtatt ggggtgtgtg gggacacaag 240  
 agactctttg ctatttggtt gcagggttgt ttgagagaga ccatcttcat cctacgcctc 300  
 ccacagattg ataaccttag gacatccact tgagggaat ttgctaccgt cctacaaacc 360  
 tctgcacttg gaggcccaac aacgtctaca agaagaacgt tgcgtagtag acatcacctt 420  
 ggtgtttggg 430

<210> 7853  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-D1

<400> 7853

cggggtcgacc ggattttgat gaatataata tgcattgtgt tgctgtctct acttgcaatt 60  
attatgagag aggaactaca tctccgcctc tttatgtttc caacacgata aaattgaaag 120  
aaactattta tactatgcat tggcctttac tttgtgagca tgaattgttc tttcatgaca 180  
tgccgatgca taggaagaga gttagacttc gttattgctt gatttatgtt actttgtgct 240  
cactactaaa ttacaaatca ttgtttatta aaattggctt tgatatacct tgggatccag 300  
gtggatccat tacttgagca ctatatgcct agcttaatgg ctttaaagaa agcgctgcc 360  
gggagacaac ccgaagtttt agagagtctt tatttctatt gattgtcttt atatagtct 419

<210> 7854

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-D10

<400> 7854

cgggggccaag aaagaaggcg gcgacggcgg cgacgccaaag aaggaaggcg acggcaagaa 60  
ggacggcgac gggaagaagg acggcgacaa gaaggaggag ggcgacggca agaaggacga 120  
ccagaagaag ccgcccgcg tggccccgct gccgtaccg caccacatgc cgctgccgca 180  
ccacatgccg ccgcccata tgttcaacgc cgactacatg atgaaccagt accggccggc 240  
gccgccggcc taccgcgcgc cgtacgtgcc gccgcagcac tactacgtgc ggaacatgag 300  
catggaggag aacccaaact cgtgcgtcat ctgctaagtc aaagtctatc cctcgatgc 360  
tcgcgtacgt ccggtggggc gaccatgcat gcacccgtgt atagtagtat tttctcgatc 420  
gtttttacg 429

<210> 7855

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-D12

<400> 7855

gtcgacagga agaagccaaa ggaaggtatg gagcgtatca ccggttggtg ggcaaaggcg 60  
gtccgcgtca gtttctttct gtccgtcttc ttctcccaac tgggtggagt gattgcgggg 120  
tttgccttaa actactggtt gcagatacag gagaagtga agtttggtgg ttttcttgag 180  
atcattccct tggcacttgc tcttggtttc tggctgctgt tccatggttt ctttggtggtg 240  
atctccatat cccaaaactg actctggact tgatgagtat gaagccggct atgagttctt 300  
cgaattagtt tgatttatgc tttcttcaaa gttgatgtcc atgtgcggac aagatcaaca 360  
tttatgcttc catgtcttag tttttaaaaa aagctgtgcc ccgtgggcaa gagca 415

<210> 7856  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-033-Q1-E1-D3  
<400> 7856

cgggtccacc ggtggaacca acattatttg ttgctagaac ctaggttttt tgctgcatcg 60  
acttcttttt atgctaattg gtttttgctg gtttgctgca tgcacttctt tttctgctac 120  
tgtctttttt gctggttcca acaacctttt cgccggcgga gctgcaaccg gtgtgttgca 180  
aagctggaac cagcgtccac cgatgctgga accatgcata tttttgcgac aagcatatcc 240  
atgttttggt ggaaaccatc tcatttttgc tggaagtacg cgatctatct ttttgctgga 300  
accatatcat ttttttgctg gatccttgat ttttgctgga acgtctttgt tttcgtaca 360  
aatggcatcg aaaattgaca ccatg 385

<210> 7857  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-033-Q1-E1-D7  
<400> 7857

gtaccgtatc aagaattcgc cggtcgacgg gggaaaataa tagttcctcc aaggatccac 60  
attttatctc tggcttcttt cttatattaa aattatgact agggataacc tgotgaagag 120

aaatttgaac aagtccattg atttgttttt cttttctgaa cctgagagtg tacagcacct 180  
 gttgtgtgac tgtttggtag ctagacttgt atggaagcaa atcagttgct tattctctat 240  
 gcaaattgga gtttcagtag agtcagttac ttccctttgg gttgctggta aaataacttga 300  
 cgctctgaat actgctgtag ctgctgtgct ccgggctttg tggaaacaca ggaatgccat 360  
 gatctttaat tgagttgttt ggttttcctt gaccaagatc tggtcgctga ccttacgaat 420  
 gctcaggaga tggcgatcgc tcttcanaca tc 452

<210> 7858  
 <211> 91  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-D8

<400> 7858

acattttatc tctggcttct ttcttatatt tgaattatca ctagggatat tctgctcaag 60  
 ataaatttgt atcacgtcca ctcatattgt t 91

<210> 7859  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-D9

<400> 7859

cggggtaata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
 ccaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaacggggccg cccaaaaggt tcaaacctaa 120  
 cttacccttg aatgcaactt caaaccctt caaaagtgcc accaaatttc aattcacggg 180  
 ccttcgttta aaaacttctt aacgggaaaa accctggctt aaccaatta aacccccttg 240  
 cagaaaatcc ccctttccca acctggctta aaacaaaaaa ggccccacc attccccctt 300  
 ccaaaaattt gccacccta aagggc aaat ggaaccccc cttaccggc ccattaacct 360  
 cggcggtttt ggtggttacc c 381

<210> 7860  
 <211> 394  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-033-Q1-E1-E1

<400>      7860

```
cgggtccacc gggaggggcta ataaactttt gcaataagta tatgagttct ttatgactaa   60
tgtgagtcca tggattatac gcaactctcac ccttccacca ttgctagcct cttcgggtacc  120
atgcattgcc ctttctcacc tcgagagttg gttcaaactt cgccgggtgca tccaaacccc  180
gtgatatgat atgctcacac ataagcctta ttatatcttc ctcaaaacag ctaccatacc  240
tacctatcat ggcatttcca tagccattcc gagatatatt gccatgcaac ttccatcatc  300
atcatataca tgactcgagc attcattatc atattgcttt gcatgatcgt aagatagcta  360
gcacgatact ttcatggctt gtccgttttt tgat                                394
```

<210>      7861

<211>      432

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-033-Q1-E1-E10

<400>      7861

```
gtcgacgggg atgatggagc catggatcgt gaggaggatc tcttcctctc ctcggttctc   60
tccaagttgg agacgctgga aaacgatgat gatccggacg gtgccgaact gagctccatc  120
aatcctcacc cggagagcgg cgaggaggcg gggccaggcg acgtggcgaa agacctgagc  180
aagatcaaga ggcagaacat gatcaccac atcctgctcg gcacggtgat ggtgatgatc  240
gccgcgtggc agttcaacga ggtgtcgttc ctccctcgcg tgcagaagaa gctgaccaac  300
cctttcaagt ccgtcgggga catgggtcaag agtaccctca agatagggaa gaagccggtg  360
gtcgaggcga tcgaggcgtc gcctctgccc cctgtcggcg tcccgacgt tggtcgggct  420
gatctgccga tg                                432
```

<210>      7862

<211>      433

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-033-Q1-E1-E11

<400> 7862

gtcgacgggg agcatggcag ggctggccgt gggtgcaacc atcctgctta atgtgctgat 60  
agctggggccg gtgtcggggg cgtcgatgaa cccggcgagg acggtggggc cggcgttgat 120  
cgggagcgag tacaggtcga tctgggtgta cgtgggtggg ccggtggccg gagccgtggc 180  
cggggcggtgg gcgtaacaac tcatccgctt caccaacaag cccctgcgcg agatcaccaa 240  
gagcacctcc ttcctcagga gcatgagcag gatgaactcc gtctccgtct gattccttat 300  
cactagcaac gttgtattac tactacaagg ctatgtaatt gtcgtcatcg tggccatata 360  
tccatggcgt atcgagtggg ctacactcta ctctctagt ggtcttggcc taactgaacc 420  
tgccagagta tgt 433

<210> 7863

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-E12

<400> 7863

gggtcgacgg ggagctcaaa ccggatagtt cgaaatacca atatgccagt agcagcagtc 60  
ctcccatgcc gacacgtctt ccacgcagac tgcttgagg aaagtactcc gaagagtga 120  
gcccataaac caccttgccc gctttgcacg cgagctccc atagtgaagg atgtgtatca 180  
ttctcggagc ctcttcacgc cgccctcaga tccgctcgca ggaatcatgg cattcgcttt 240  
tcttctggtg atgcgggtgg tagcagcagc agcgcaaacc cttctcgcaa cgaccatgtg 300  
ctgaagagaa atcagtctgc gctcgcgcca gcgcgcagcg gctcgtgtt ccggaaccgt 360  
ttcaagaagc agttcccctt caaggggagg ctcggaagg acctgtttgg tggcaagggt 420  
ttc 423

<210> 7864

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-E2

<400> 7864

cgggtccacc gggctcctgt atagattcct gatgtctcct tgggcagtga ggtaggggtt 60  
 tctcgatcatg tggggagatt tgggtatcagg tgcttcaaatt ctattcaagg gttcgacgat 120  
 gacgattacg gctccagggc gctgggttctt aggggcaggt acacgaagac ttcccaacta 180  
 ttatcgacaa ggtcaagttg actcctgtag gtaagtggcg acaacagctc gttcagacga 240  
 tggtagtggg cgttcgatgg tctcgaaatc tcgatgcatt tttattatta tgctttgggt 300  
 gctttgtact tctggagaac tttggtaatg atctggatca ttttcccaa aaaatgcacg 360  
 tgaaatgcta cttatattct atagatactt acaagtatat aataatcata tatgataaat 420  
 cataatatgt gtt 433

<210> 7865  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-E3  
 <400> 7865

tccgtgttat cagcagtgac acacgttgca cgctatcct cctaagccgc aaatattcca 60  
 tggccacgta tttcgaccg gaccgtcagt cgaacgtaga ctacacaaat gtcaagaagg 120  
 ttcttgatga tggtctcccc ggctacgcca aatctggagg caccttcacc aggcctattc 180  
 gtaagtacgg caagcagtg ttctcccaca atacgacgtt ctgctgcgtc aagcagccgc 240  
 ctggcgggtca gaagggtgcc tactacgcca tccatcacat gcgggagatc gtacgggacc 300  
 atcatcaact tctgctaccg agtaaactcc aagattgggc cgcgagcgtg tcggcaatcc 360  
 aggacgcgga cctccgacaa gaattctttc gcatccagtc ggagtttgcg gaaatcatcc 420  
 atcaa 425

<210> 7866  
 <211> 270  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-E5  
 <400> 7866

cggggaagc caacaagtca gcctgccact atactgggtc ccagctagca aggggagtat 60



tcattttttt gtgtaataag gaggcacttc cttgcgtgcg aagatgtagc tgggtgggtcc 120  
aagctgtcag tggcggtaat gtttttttcg caaaatacag aagccctttc cgtgggtccc 180  
agatgtcaag ttgaagaatc attaatgtgc gcctaataag gaagcaattc cttgccttcc 240  
ggcaatggac caactgtcaa cctccccaag 270

<210> 7867  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-033-Q1-E1-E7  
<400> 7867

aattcgccgg tcgacgggaa ggatcaaag ttgcaaaca gttaaactt gcaatcaccg 60  
aagccagaat gcccaaacta taggtttcag ggttatagg gattgtcaac agtgatttct 120  
ataaatcttg tttgagcatt agatttggtg ctgccttttt tttagccgtg acacatttgc 180  
acatcgcatg ttcctatctt acaattggca accaggtgtc taagtggcat ataggaatat 240  
atcaggcagc gtgtatgttc agttaaact tagcccgta ttggaatgat tgatgtcata 300  
ttgcacattt tccacaatta aaaaaaaga aacaaaaat gaaaggagaa gacagaaatt 360  
agagaccaa aaatagaata aaaggcaat aaaaaatagc ggccgctcta aag 413

<210> 7868  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-033-Q1-E1-E8  
<400> 7868

ttcgccgctc gacggggggg agcagcggca agaagcagac gagcaagatc gtcggcttcg 60  
tgaagatgca ctctcgtcgc acctccttcc cgccagctcg agcgaggat cgggttgacg 120  
ccagccgcgc gccctgctat tcgtcataca acgactacga gtacgcggcg gagtggaacg 180  
ctgtggttcc ggcgacggcg gcggccgtgg aggaggaggt ggtggagggtg tgcgacgaca 240  
cggcgagtg cgggtacctg tggttgctgg aggaggagag gtcgtcgggt ggcgtgccgg 300  
cgggcgagga cgacggcgcc gaggctagtc cggcggtgaa cgagatcgac aggctggcgg 360

agaagttcat cgcgagggttc cacgcgaagt tcttgctgga g

401

<210> 7869

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F1

<400> 7869

cggggtccacc ggttctgtat attttatggt tcccttgtag tatctctgta ccaaaaatgt 60

cttatatttg gtacagatat ttctggaggt taaactactc taaaaaacgt cttatatattg 120

gtaaggaagg agtatacata aagccactag cccactgcgt ataaatgcac tgttcaagtt 180

caatagatag actatcgcta ctcatcaaac cattctgccc cctctttatc tatagcaaag 240

taactaaacc ataactgatg ataatggcaa ttctgaagtt gacagacaca cataaatgtg 300

tgggttatgct tgtataagaa aaccgagtca tccggttaac aagagaaaaa ctgaattaaa 360

gaccacacga caacagattg gctaactagc ataaggagca tcctctgtcg c 411

<210> 7870

<211> 64

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F10

<400> 7870

gagtcgtatt atgtttggtt ggtttgataa atatgttctg ctttctaaat tggatataaa 60

catt 64

<210> 7871

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F12

<400> 7871

gtcgacgggg tgagtaaacc agcctcattt tggaaacatg atctcaaggt tgaccatact 60

tccctcttcg caagaactgc atcctgacat gaagttactt ctttggttaga tcaatactga 120

gagcaaccta gatccattta gtagaagcca gataaacaag actcgaagaa gtgaattcaa 180  
aaggagaaat ataaaaacag gctccaaggt gagaacaccc acttcctaca tcaagctaaa 240  
aacgaaagca ttaggatgat taagactctt cttattacac atcgaagaac atgaggctaa 300  
gagaaacaaa aactacaaca tatacacatc gaagaacacg aggttaaagt aaagtaattg 360  
aaaggggtgtt acttaccaaa gctcgtttta cagggttcggt gcagctcctc tccaacttgc 420  
cactttc 427

<210> 7872  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F5

<400> 7872

attcgcgcgt cgaccctgga taacatccac atctgcatgc aatccacaca gaccgatgtg 60  
gagcgagcac aagctgatgc aaactgcaga cctgttcgtc gatatacaagt gtaaaactct 120  
caacacggat cacaccattg cggcgaacaa catcctgagc gcgatgcact agcaatctgt 180  
cacgcctgag gatcaaagga tcttgtgatt aagtagaagt aggtaactca cacgcattgt 240  
cgagtcgatg gatcttgtac aattggcttg gactttgtct ttgttatgcc gccccatatg 300  
cttcctagcc atacgtacac tttcgtacgg ttgttcaatt gttttcttcc gggtgttacg 360  
gagtccaaac tagctttcgg catcaacaat gtctgactga cgtgccttac ggtaaa 416

<210> 7873  
<211> 357  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F7

<400> 7873

gtaccgatcc tacattcgcc cgtcgacggg cagcatcatg atcatgagga atatatagga 60  
taataaggcg gtgtattacc gccatgcccc gttgagctag ctgatgttgt ttcggctaga 120  
gaaaatcggt acgcccgtc ataattcctt tttcgtatgct ctggagaata ataactactg 180  
gtatatcatt ctatatatca aggccggctt gtgaaataaa tgatcctgcg ccccggtttt 240

tgtgtcgtcg aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa atagaaagga aaaaagaaaa 300  
 aaaccaaaaa aaaaaaaaaa aggaacggta aaaagaaata attatgcttc aagcaga 357

<210> 7874  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F8

<400> 7874

ttcgccggtc gacgggttgg agatatttga gcatttaaatt attttatatt attttaaatg 60  
 cccaaattca aatattttatg attttaaata aaaaccttag gatggcctag gaaaatgtgc 120  
 accacttttg gcagagggtc tgaaccaagg caaaaatgat gggcatttta gaagggcatt 180  
 tcaggttcat tgaaaaatta ttttagtaac cctagttggt ttcagagggg actggggggtt 240  
 ctgtcatccc catttcaagt ttctgatgaa agagtaaaca tgatgcaaca ctctaatagca 300  
 tgactagcta ggggtgtgaca tcagcggaac ccagggccgc ccggatagat gcatcggcct 360  
 ggagccaccc tgagatcagc ccagggcgcc ccaacgctgc gcgaaagtcc aggcc 415

<210> 7875  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-F9

<400> 7875

cgggtaaaaa caacgatggt agtgaagtgt ttgattgggt tgagaaatat gttctgcgtt 60  
 cgaaattgga tgtaagcatt gatcacctag agctgtgctc actgttatca catggtgggtg 120  
 atgcaagaga taaacatatc accttattga tgaatgctgg tctcctgaca cgccaactaa 180  
 tagatccaaa catgtactgg ttttctattc caagtattgg tcctatcttg aaaggcctat 240  
 ccagggggag gaaggaagtt ctttcattac tgggcccgtc gaagtacaag gagatgctac 300  
 tatcttcact ggagaagacg aggttgaggt tatcacctct cgacgtgcgg ttccacctcc 360  
 gcgatctgat tgggtctggt cacgtaaaaga ccgttcaaac acccaccggc ttacttgctc 420  
 gca 423

<210> 7876  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-033-Q1-E1-G1  
 <400> 7876

cgggtccaaaa tatccgggtc gacgcggaga tggaaatgaa agagaagttt gaaaagaacc 60  
 ttcaagaggc agcagataag taccaaaaca ccaacttgta tctgaagaac ttagatgata 120  
 ctggtgatga tgaaaagttg cgagaacttt ttgctgagtt cggaactatt acttcctgca 180  
 aggttatgcg tgattcaa at ggcgcaagca gaggttctgg atttggtgct tttaaatccg 240  
 ctgatgatgc ttcccgagct cttgctgaaa tgaacaacaa gatgggtggc aataaaccac 300  
 tttatgttgc actcgcacag cgcaaggaag acaggaaagc taggctgcag gcacagtttt 360  
 cacaaatgcg tcncgttcca atgggtccaa ccgttggtcc tcgtatgcaa atgttacctc 420  
 ctggtgtttc agtcggtc 438

<210> 7877  
 <211> 281  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-G11  
 <400> 7877

tcgcctgtcg acgggtgata cgtatgatga ttgtgatatc aagattagga gggatgaatgt 60  
 tagagcta at cttgatattt gtattagcat gtttgagttt tgtatgtagt ctagtctagt 120  
 gtggtgttcg tccgacgaag gcttcaggtg agcgcgcaa ggaggtgaga tgccaggatg 180  
 ccgtgtgagg cggcgagcac ggcgagatgc cgatggtgct gccttagaag cggcaagacg 240  
 tatcagaagc tggaaccgtt atggactgca tcaaattggg t 281

<210> 7878  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-G3

<400> 7878

cgggtcggcc ccgactacac agtgatggcc ttcgccgcca tgatgaggaa gaaggtcacg 60  
atgcccggcc acttgatgta cgacgggcag gacgacaacc tgtttgagca cttcagcgcg 120  
gtgggtcaac ggctgggcgt ctacaccgcc atggactacg ccgacatcct cgacttcctg 180  
gtccagaggt ggaacgtggc caacctcact gggctgtccg gggaagggag gcgggctcag 240  
gatttcctct gctcactggg accaaggttc aggaagctgg aggagcgagc tcagggcagg 300  
gcgaagcagt taccggttgt tcctttcagc tggatccatg gccggcaagt gcaactttga 360  
gtggcattgc taaacaatta taagacaatt tgttcttctt attttcaaaa tatgaagcaa 420  
c 421

<210> 7879

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-G4

<400> 7879

gctatgaaac tgacctactg catecggggtg tccgggttcg tgtgcgcgct cttecggttc 60  
gggatcccggt acctgtcggc cctgaggatc tggctgggct tctccaccat cttcagcctc 120  
acctacatct ttgcagcctg cgtgctgtcg ctcaaggacg gcttccgctc gccgcctcgg 180  
gactacagca tccaaggaga accgtcgagc aggggtgttca ccaccatcgg cgcggcggcg 240  
agcctgggtgt tcgcctacaa caccggcatg ctgccggaga ttcaggccac cgtgcaggcg 300  
cccgtgggtga agaacattga gaaggcgctg tggttccagt tcaccgccgg ctccgtgccc 360  
ctttacgcca ttatagtcac cggtactgg gccta 395

<210> 7880

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-G5

<400> 7880

gtaccggatc aagcattcgc cggtcgacgg gggagcgtaa cataataaac ggaacggtgg 60

aaagttgcat ggaaatatat ctcggaatgg ctatggaaat gccatgatag gtaggtatgg 120  
 tggctgtttt gaggaaggta tatggtgggt gtatgatacg ggcgaaaggt gcgcggtatt 180  
 agagaggcta gcaatggtgg aaggatggca aaaagtgcata ataatccatt gactcaacgt 240  
 tagtcataaa gaactcatat acttattgca aaaatctaga agttatcaaa gcaaagtatt 300  
 acgcgcatgc tcctaggggg atagattgggt aggaaaatac catcgctcgt ccccgaccgc 360  
 cactcattag gaagacaata aatacataaa ttatgctccg acttcatcac ataacggttc 420  
 atcatacgtg catgctatgg gaatcacaaa cttt 454

<210> 7881  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-G6  
 <400> 7881

gtacgagcaa gaattcgcgc gtcgacggga tatatgcact ttctagcaaa ggtcgtgccg 60  
 aaattttccg tgaatttcgg catgacttgt gctagaaagt tggacatatc gtagtctcga 120  
 ttgtcgcgac gggaatgaaa caacatttcc gaaacaaagg tcactttttt taattattca 180  
 ctttattata aaaagctcga taattaaacg actacgacat tgaaccctag gaaacatgac 240  
 cgacaccgat gaggcggag gttctcagtc ccaattaggt cgagcacacg cctacctcga 300  
 ctttctggcg gatcaggaga gacagcaagc tgggactgag actggcgctg atgacgacgg 360  
 tgggtggcgcc ggcgccgaca ctgatgccac caacgacacc gacactaaga ctggcgctga 420  
 tgatgttgct aactacagca 440

<210> 7882  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-033-Q1-E1-G8  
 <400> 7882

gacatagtta gaaactaagc cgacggccaa gccgtcggca tattccttca tacagagcta 60

ccagtagctg acacgtggca cctatgccga tcggcatngt ggctcgtggga ggatcgggatg 120  
 ggttggtaca agtatttcta ggaagacgtc gtgtagcgtg gaggcgggag attaaactgca 180  
 ctttctgatg atgcgcttcg atggatgatg tcacagattg tgtatatagg cgcccaggct 240  
 gctgccgaca cgatcggggg cacttacgtg tggtttctgc atggcatgca gctgatagtg 300  
 ctcgatggag tct 313

<210> 7883  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-G9

<400> 7883

cggtggcatc tgactcctgg actccaacat ctggttgcca caaccagata gaaaggaaaag 60  
 ggggaaaaag agggagagaa gcaaccgtga gtactcatcc aaagtactcg caagcaagga 120  
 gctacactac atatgcatgg gtatatgagt aaagaggcat atcagtggac tgaactgcag 180  
 aatgccggaa taagaggggg atagctagtc ctgtcgaaga ctaagcttct ggacatctcc 240  
 atcttgcagc atgtagaaga gagtaggttg aagtcctcca agtggcatcg catagcataa 300  
 tcctaccggg cggtcccttc ctggtcaccg cgtagagag cgatcaccgg gttgtatctg 360  
 gcacttgga ggggtgtattt tattcagtat ccagttctag ttgtcataag ctcaatgtac 420  
 aactccggg 429

<210> 7884  
 <211> 192  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H1

<400> 7884

tcgtattagt tggtagtga gtatgtgaat gagataattt gtgggtattg atgtgattgg 60  
 aagttcgatt tgtaggcttt tattattatt atagtatgta gagatgagat ttttatgttt 120  
 tcatgtatat ttgttttggg atggggaggg aagatttgta gtgagtaatg tgatattgag 180  
 gattggtttt ag 192



<210> 7885  
 <211> 289  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-H11  
 <400> 7885  
 taattaataa aacatgggct tttctgaaat ttttgtaa at ctcgttttta tctagtcctt 60  
 tcctgtcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ataaaaaaaa 240  
 aaaataaaaa aaaaaaataa acacatcaaa aaatcaaaaa gattacatt 289

<210> 7886  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-H12  
 <400> 7886  
 ggataactaa aatgactcct atcacaagga gggcacgatg gagaagatca aggacaagat 60  
 cagcggcgac ggcaagaagg acggcgacca caaggagaag aaggacaaga agaagaagaa 120  
 ggacaagaag cacggcgagg gccacaagga cgacgacggc cacggcagca gcagcagcga 180  
 cagcgacagc gactgagcca gctccggccc gcgctccggc agcgtgcagt gtaggcgaga 240  
 tcgatgatga acacttggga gaagtgtgac agacatatat gttgcagggg ttggagcgtg 300  
 tggtagcata tgtatgtaat gcgtgacatg cctcatggat cttgtgatgt ataataatta 360  
 gccggccgca ctgcactgaa cggtgcttgt tataat 396

<210> 7887  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-033-Q1-E1-H2  
 <400> 7887

caatatgtac aaacttggag cgtcttttgc atttagtttt catttttatt ttatgcacca 60  
 tgctggtag agatagtcct tggttgatt atagaatgct ctttgcactt cacttatatc 120  
 ttttgagtat ggctttatag aatgcttcat gtacttcaact tatatcattt gaagtttga 180  
 ttgcctgttt ctctttacat agacaaccac cattttctaga atgctctttt gcttcgctta 240  
 tatttgtag agcacgggca tatcttttgt agaaagaatt aaactctctt gcttcactta 300  
 tatctatttg gagagatgac aggaattggt cattcacatg gttagtcata aaatcctaca 360  
 taaaacttgt agattactga atatgatatg tttgattcct tgcaatagtt ttgcgata 418

<210> 7888

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H3

<400> 7888

ggatcgagga gaaaggggat caagaggatg aaggggcacc gcgccaccac cgcggttgg 60  
 ccaggcggcc gttggcggcg agggaggagt gccggaggag gttcgctttc tttggcagaa 120  
 tagggggtcg tctcgtatgt agaggatcat gagcttcctc tactcaactt tagtttccac 180  
 tccttctaag attttagcaa tatcatctat tatattagta ctactactca gaagttttcg 240  
 gactggttcg tgtttacagt ttagtcaata ttgtgtgcat taacgctttc ttggatatgc 300  
 attttgattt gactggatta ccttaattta tcatgtgtgc taactctaaa gtctaaacta 360  
 tgaccatacg gttgccacat acctacgaag acatgaaatc ttcattcttg gtaaaataca 420  
 at 422

<210> 7889

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H4

<400> 7889

gatgaataca ggaatctgtt aaaagaactc gttgttcagg gcctgcttcg gttgaaagag 60  
 ccagctgtac tgctccgctg ccgcaaagaa gatcaccata atgtggaatc tgtactgcat 120

tcagcaaaga atgagtatgc atcaaaagca gatgtccatg agcccgagat actagttgac 180  
cacagtgtct acctgccacc ttctccgagc catggcgatg agcacggcca gatttgccat 240  
ggagggtgttg tgctggcttc tcgagatgga aagatttgtt ttgagaatac agttgatgca 300  
aggcttgaag ttgttttccg caagaaattg ccagagatcc ggaagcttct tgttgcgga 360  
taatgcccac ttgtattttg gtgatggtac agctgtttct atgtaaaat 409

<210> 7890  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H5

<400> 7890

gtaccggatc aagaattcgc gcgtcgacgg gttcattgag ctggacgaag atcgatgctt 60  
cagcattaag ctcgaggaga ctttcgatgt tcatacggta cacaacgacg acaatagttt 120  
tttttcgtaa ttaagcactt caactatttt aacgtgtatt ttcatcttt tccaattcga 180  
ctagcttatc ccatgctatg caagacgcca tgtcttggag aggatgggtt ttgaagacca 240  
tgaaagtatg gaaacaaaaa aattctccta aggacccatc atggtgtgga ttttcaagta 300  
aagttgtaca atgctgagag tgtaacccat tttggttgca aaaattcgga agcactttgc 360  
aagatgtatg gttttgatga gggatgctt gtcacatgg atcttggtga tcatacaatc 420  
cagcaagaca atatgggcat ttgggtcctt gt 452

<210> 7891  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H6

<400> 7891

cgggctgaag caggacctgg agcgggccga ggaagagctc gacctcgta agaagcagct 60  
ggaggacagc caaggatatgt agtatcctgt gtgaatattt aggaaagatg catggttcgt 120  
gctgacgaaa gtgtcatgaa ctgtattagg ggccacaacc gaggtggcag cccttaagaa 180  
ggcgtagcc aaggccgagg acaaagcggc caaggaacgc gcctcgcgcg agaagcggga 240

ggccccgggtc agcgagggtcc agcaagagct ccaggacgtc gtcgagaagt acgagtcctt 300  
 ggagcgtgat tctaagactc aagagccccga acttgccaag gcccgccaga gcacacgaga 360  
 tgcecgagaa aaagctcaga gcgccctcca agaaatccag 400

<210> 7892  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H8

<400> 7892

cgggttcaac taaggcattg ataccacgc aactttgcaa gagaaacgcg catttgacat 60  
 caaccgggcg cactaaggcg gatcgatgat cacctgtggg cttcagcggg ggcgcaaac 120  
 gatgcagtct gaggtactcc tgtagccgaa gtgatgtctc ttctacagtg tcaactctagg 180  
 ttcacttcac tggccttcga ttaacaatca tcctgtaagg gaaagctcta gcggtaaaca 240  
 tggtatccgc cgtctctcaa atcgccctat ctccaaccgg gttaacaccg aaaacgcccg 300  
 taacgatcgc acgtcttatt atttgcacac cgtgatgcga ggcttggact ctcca 355

<210> 7893  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-033-Q1-E1-H9

<400> 7893

ttcgcgggtc gacgggatga tccgagaggc cgacgtcgac ggggacggcc agatcaacta 60  
 cgaggagttc gtcaagggtga tgatggccaa gtgatccagc cgatgttcat gtcgggtggt 120  
 attattattt ttaccgggga ggaggaaatt gtgcattgca tattagtagt aaggaatgcg 180  
 gctctcgttt ccttgtctct gccccgaacc agaagaagcg tactagtaga cgtagtgtgt 240  
 gaagagcact catggaatcc tctcccttg ctgctaccct gtctctctcc cgtgtgtcat 300  
 tgaaacatct ttctttctgt gtgaatctgc aagacttggc cccttcgtga 350

<210> 7894  
 <211> 405  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-034-Q1-E1-A11

<400>       7894

gtctccaggt tcctgcgagg tgatccgtat gatgattgtg atatcaagat taggagggtg   60  
aatgttagag ctaatcttga tatttgtatt agcatgtttg agttttgcat gtagtctagt   120  
ctagtgtggt gttcgtccga cgaaggtttc aggtgagcgc gccaaaggagg tgagatgccca   180  
ggatgccgtg tgaggcggcg agcacggcga gatgccgatg gtgctgctg agaagcggca   240  
agacgtatca gaggctggag ccgtgatgga ctgcatcaaa ttgggtcggg tgaaccggcc   300  
ggtcgttctg tttgttggac tagctgttca tgcgtgagtt cgtttagtcc tagctgagag   360  
tatcgttgct agtagttgat gcatgcatgt agttggcctg gtcac                   405

<210>       7895

<211>       411

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-034-Q1-E1-A2

<400>       7895

attccagggtc gacgggacat ggaaattact aactacccat tagatggaca atccatcggc   60  
ccgatttcca ctgctctaaa taggggtagg ttactaactt caattagacg tgacacgacc   120  
gcctctgagc ccattccgac actatgggcg tcaaacatgg gcggaaaaac acatttgatt   180  
caagctcgtc tgaaagacct atgtttctcc ctccagtccc cattcataca cgggtgggcgg   240  
cataacacac tcgactcggc agaaattgat gtacgcaa attttcaata ggggcagggt   300  
tgtaacttca ctcacacgtg atacaagcgc cctacctgtc agcctcgttc atacactgtg   360  
ggcgccaaac accctctcct cgcccgaat ccctctgggc aaatattggc g                   411

<210>       7896

<211>       419

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-034-Q1-E1-A3

<400>       7896

ctccccgggtc tacagataca gtcacctaac tggtttattt taggctatgg ataaatgatt 60  
ctagcttctt gtaagagcct gacatggaca tatgaggcat ccatacctgg tttgaatgac 120  
ctccgacacc gtttacatgt tacgacacgt ccgaccattt atcacctatt ttcacgaga 180  
aaactctaga aatgcaaaaa aaattaaaaa atctaaacaa ctctgcattt ccttaccaag 240  
aaaactctag aaaaatacga aacttggtga aaacaaaaac aatttgatcat ggtgccttga 300  
attgttcata cgaggccatg aaaaaaatta ggaaattttc aaggatgtca aaaactgacg 360  
tgctctctaa cacacccttt ctggccaacc tgaacacctt ccggtgaaca tgatgtttt 419

<210> 7897

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-A5

<400> 7897

ccgggtcgac gggttggagt atatttgaag tcaccattag ttgatctacc cacctctatg 60  
tgcaacccaa gatatttctc tgagaacaat tatttgtgac ctctaggatt tccttaacca 120  
ttgccctagt ttctccggac aacccttccc caaaaaatat gttttatttt atgtgttatc 180  
tagaatagca tctaccagta ttctcatctc cggttggttg agtaaccgtt gggcctagga 240  
ataaaaggcc cattggcctg ttccgggttg gccatcccat atgactccac atcatgagaa 300  
aatcactagt taagaggat cccttgcaaa agttactctc aaactccact cagacaaca 360  
agtttgtcaa aacttatcga catggtgttg ataggttttg atgaacttta atttttgaag 420  
aaactttaat 430

<210> 7898

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-B1

<400> 7898

tccccgggacg cagaatatcg tgatcccgcc gggcaacttc ctggtgggcg cactggagct 60  
gtcgggcccc tgcaacctct ccatcatcat ccggctggac ggcaacctcc tgtgcaccgg 120

cgacctcacc gcctacaaga agaactggat cgaggtgatg cgcgaggaca acttcgccat 180  
 caacggccac ggcattcatg acggccaggg cccctctgtg tgggagaaga accagtgcag 240  
 caagcactac gactgcaaga tcttcccaa cagcctgggtg ctggactacg tgaacaacgc 300  
 gacgatccgt ggcattcacg tcaagaacgc aaagttcttc cacctcaacc tcttcaactg 360  
 caagtcggtg ctggtggaga acgtggagat caccgcgttg gggaacaacc ccaac 415

<210> 7899

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-B10

<400> 7899

gtcgacggga gtgatccacc tattcaatta cttcaaccat ttccgagcac ctcatatcac 60  
 tttccaaggc atatgatagt tttatcatct gtggacgatt tctttctcgt tcaacgcctt 120  
 ttttcaatgg tctcgaagag agaaatttcc cattttttatc tatggagtca caaccgaggt 180  
 cgtggtaaat ccatgaattt gattcgattt gttttttctta tactatttgt ttttcttata 240  
 ctatagaaat agaaataaat tttatttctt tcttatacta tagaaagaaa taaacctttg 300  
 aattcagcat tattccaaga ctctatttc aaagtctatc ttttaaggga aaaatgaaaa 360  
 taaaagtaac ccttcttttc ccattccctc tctattgcat ggggtggaaga actaaaatag 420  
 aggattctga aaaaaaagga ctttcgaaat ccaattt 457

<210> 7900

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-B11

<400> 7900

gtcgacatgc ctctgcaaa ggattattgac attcctctg caaaggcgct gcaaaagggt 60  
 gatcctctgg tgccatccaa ggtgctccga agagatgctc ctccacagag tttgctgtg 120  
 ttgccgaagg aaacaataaa agttgcttct tcccaccagc cagacaggca gctgcagccc 180  
 gttctgcaca aaccgaagggt gcctgtagtc tctccctca tcaaacagca gcagtcaagc 240

accttggcga aagaagagcc ttgttcctct ggcaggaaga ctgaaaaaaa taccagaggt 300  
 taagcagtca aagtctgac gtaagaagag ccgcaaggct gagaaggaag agaagaaaga 360  
 gaggaatc cgagatcttt ttgttacctg gaat 394

<210> 7901  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-B3  
 <400> 7901

gtcgacgggg tccgatgagg cggcgacaaa gtttaagcca gcagctggcg ggaacgccgc 60  
 gggagccgac gcccagctca cggaggtgct ggacttcgtt gtggtggatg aggatgtgga 120  
 gaagtccagg gactgggagt ggaagtggag ctgcaacgag tgcaaggcgg accccaccgc 180  
 gccggcagga ctcgtcgcca agaacaagga gttcgacaag atcatggata tcatacctgc 240  
 catcatcaag caagcagtcg ccggcgcgga caattccacc aaatcggaca ccaaattcaa 300  
 atccaaatcc tagggagcca actcttcgtt atgtctactt tcaaccttcg ccgttgatgc 360  
 atttctattg cgccatcccg tctgaccac accagcaggg tgt 403

<210> 7902  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-B4  
 <400> 7902

tcacgggacc cgaggagagt catggtcaga agaggagcac aaaaattttc tacttggatt 60  
 gaacaaatta ggaaaagggtg attggcgtgg catatcccgat aattatgttg tctcgaggac 120  
 acctactcaa gttgctagcc atgctcagaa gtatttcatt cgccaaacaa atgttaatag 180  
 gagaaagaga agatcaagcc tcttcgatat ggttattgag gatcctagtg accagccact 240  
 ctcccgttca tcgtcacaag agatgccgct ctcccgttca tcttcacaag atgtagaaga 300  
 gttcgtagat gatctacgac ctgttactgc tctgtgaca ccaccgctc ctatgcccgat 360  
 gataacatct gtttctgtcc ca 382



<210> 7903  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-B8  
  
 <400> 7903  
  
 tccgggtcga cgggcgggat catgatcatg aggaatatat aggataataa ggtggtgtat 60  
 taccaccatg cccgttgagc tgatgtttgt ttcagctaga gaaatcgta cgcccgtca 120  
 taattccttt ttcgacgctc tggagaataa taactactgg tatatcattc tatatcaaag 180  
 ccggcttgtg aaataaatga tccgccgtct tgccttcaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaatacataa g 271

<210> 7904  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-C1  
  
 <400> 7904  
  
 taagggtgtg ctgatgacat tttgaggtcg ataacgtgga agagcatgga ttgaggtggc 60  
 tgttaaaaaa aaaaagaaaa aacaaagaga aaaagaaacc acaccgccta aaaaagcaaa 120  
 atagatcaaa gagacgtcac atagacaaca tcaccatcaa cggaaacaga aataaacaac 180  
 ggacattgca ccctcattat aggataacaa ccacgtgcaa caaacactac gactccaaca 240  
 taatcccaaa caaactaaat gccggagtac gctaacaac ctaacattca tggcaacacc 300  
 ctcaataacg caaaattcta ccacctaac etc 333

<210> 7905  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-C11  
  
 <400> 7905  
  
 tcaaggggtt aaaaattgtc agtactcaat gatgtatcgc gacctgaacg acataagcga 60

cagatggccc ttgtacaatc atcagaagca gagaattccg cgtggtggag cgcgtcgtgc 120  
gcgaggaatc cggggcatcc atgatgcaca cccgcaccaa attaccaaaa gtgggcgctt 180  
gtcatgcaag tcaagcggca agtcgctcgt gtctagaaaa cggatgatcaa agatggcgcc 240  
gaccagaacg actaccggcg cgcactgcag cttattctca ccggcactcg caagaaattc 300  
aaataaatgt gttgaagatc atcaaaggaa ggaaaaaga 339

<210> 7906  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-C12

<400> 7906

attccgagtc gacgggggta ccgtgatgat catcggggca gagattctag aaggcgaagt 60  
cggagtcgga gtggagatag atatggacgt gacaggtaca gagagaggga tcatcatcgt 120  
cgtagcagga gtcgtagcac tagccctgat gattacaaga ggcgtggcag agacagaagt 180  
cctagtcgta gcaggagccg cagctacagc cctgatgatg acaggaaggg tggcagagac 240  
agtttgcgc ctgcacgcag aagcactagt cgctcccctc gcaagacacc acctcctcgc 300  
gaggggtctc ctgctaagcg caatgatgat cgatctcctg ctaagcgcaa tgatgaccgt 360  
tctcctgtta ggcgcaatga tgaccgttct cctgttaggc gcaatgatga ccgttcccct 420  
gttaagccca attattaccg gt 442

<210> 7907  
<211> 195  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-C2

<400> 7907

ctggacagca ccctcctgag caccggcgac ctcaccgcct agaagaagaa ctggatccag 60  
gtgatgcgcg tggacaactt cgccatcaac ggccaccgca tcatcgacgg ccaatgcccc 120  
ctcgtgtggg ataacaacca ctgccacaag cactacgact gcaagatctt ccccaacagc 180  
ctggtgctgg accac 195

<210> 7908  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-C3  
  
 <400> 7908

attccagggtc gacgggatca cgttattcat ggcattgatca tgtatatagg caatacgcct 60  
 gtcacaagta gaccgactcc tgcctgcatc tactactgtt actccacttc gagagcactt 120  
 ctatgcttgc ctctccagat attaagttca tgacaaacag agtaatgcat gaagtatgat 180  
 gacataatgt atacagaata aaaccaagca atatgattaa accatgtcgt tttccctta 240  
 gtagcaacaa tacaaatacg tgccttgta cccctcctgt catagagtga ggacaccgca 300  
 agattgaact tattagaaag cacctctccc cctgaagata aatcaatcta gttggccaaa 360  
 ccaaacggat ggatcggaga gaaatgcaaa gctataacaa ttacacataa taaagttaaa 420  
 aaaagac 427

<210> 7909  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-034-Q1-E1-C4  
  
 <400> 7909

cggggactgc gaaagccacg acatctaggt tttaataggt tgctcctagt attactcact 60  
 gtataaattt gaaattcaga acaccctctc aaacatgata agatctcata aagctcacat 120  
 cacgtcacia cggaatggac acgcgcgtaa acgggtcgat cggtcgacct gacctggatt 180  
 gccgctgccg ttaacgctgc acacattgtc gatgttccac atgttttact actattttct 240  
 ttcgaatcgt ctcatctttt tgtttagcgg tgagatgtgt atattaccgg gtcctgggaa 300  
 ggggaggtga attg 314

<210> 7910  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-C9

<400> 7910

attccgagtc gacgggcat gaaaagaaat gaggcctcca cagcttcaag cgctcttct 60  
aagtctctgt ttgccgtcgc aatggattgt tatgactact gtctcgtttg atcggttgat 120  
cgttttaaga tatttggttg tcttgtaatc ggatatatta tgcgctccag aacatctgag 180  
atgtactaaa cttgagccta aataactggt tgctgtcaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaactaaa aaaaaaaaaa aaaagaaaaa aaaaaaaccc aaaaaaaaaa acaaaaaaca 360  
aaaaaaaaaa ggggcgcccc aaaa 384

<210> 7911

<211> 458

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-034-Q1-E1-D12

<400> 7911

attcncaggt cgacgggggc tcaacaatac tatggaactt cccgacaagg tgaagccagt 60  
gcaggaaatc agggaatgca atcacctac agatccagtt cgtttctctgc acctcagtat 120  
gcactgcaga gagagaatgt ttttctgag agacctgac aaccggaatg catatactac 180  
ataaagactg gagattgtaa atttggtgca gtttgcaa atccatcatcc ccgtgtgcgt 240  
tcacagcctc cccagactg tatcttgagc ccaatgggtc ttccattacg cccaggggaa 300  
gagctctgca agttctattc tcgctatggc atctgcaagt tcggcgtaaa ctgcaagttc 360  
ggccacccga tggcggctcc gatgggggtc tacgcgtacg gctactccgc ctggcgctcg 420  
cccaacgcgc ccatgggccc gcgtctctg gagtcccc 458

<210> 7912

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-D3

<400> 7912

attccaggtc cacgggaggg acccaagagg caacaattca gtcaattcctt gaaatgggtg 60  
 gtggaacatg ggacagagac actgtgctgc gtgccctacg tgctgcattc aacaacccgg 120  
 agcgggctgt tgagtattta tattctggta ttcttgagcc gatggagatt cctgcaccac 180  
 caccaagtgc ccagccagct gatcctgccc tggcttcaca agcagctcaa cctgcagttg 240  
 cctcttccgg tcctaacgct agccccttgg acctcttccc tcaagccctg ccaaattgctt 300  
 cagcaaattgc tgctggtgaa ggaaatctgg atgttttgcg taacaatgca caattccgaa 360  
 gcttactttc tttagtgcag gccaacctc aaatcttaca gccattgctt caagagctgg 420  
 gaaagcaaaa ccctc 435

<210> 7913  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-D4  
 <400> 7913

attccaagtc gacgggcaat tatcagatag cactggcct aaagttgcaa ggacattcaa 60  
 catcattgaa ggctcaatat ttgcctttcg cttctgcagt ttcccagatg agattcatct 120  
 gtctatttac catgtatgat gctattttcc aaagggtttt gatgctgcat gtgaaagttg 180  
 gtgctgttgt gtaatggcgt aattgagtgc cgaagctagc tgatgtaatt caattatgaa 240  
 atcctggttg cttgtatatg gatatgaaat atctggcatg ttttataaga aatatcagtt 300  
 tgattagtag atggattatc aataataggc taattaccct gcatagtggg gttttctatt 360  
 gcacgcggtt actt 374

<210> 7914  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-D7  
 <400> 7914

ggtccaggac tccgggtcga cggaaggcac catactatta tgagtgcggt gatctagaag 60  
 gttcagtccg ccaagagcgg actgactgaa gcctgtgccg gccttctaac aggctttgag 120

gtaagtaaag aatatgtaaa attattatcg catagatagt aacccatgat gctctgttcg 180  
 gcgttcagaa agaaaagccg aatagaggat ctaataatcg cgggagtcta acataatcaa 240  
 gtcaatatgt gtacgcaggc ttcgctgctg gcctctgctg cactgactgc ggaggtggat 300  
 acgctgtagc agaaccttaa gcggtccgag caagagctcg tcctagccaa gcagcagctc 360  
 gaggagaagg atggtaagaa ataccttatt gaaatatgtg aaaggtgcaa ttgcaaaaag 420  
 tgacaggatt aacgcgggta ttg 443

<210> 7915  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-034-Q1-E1-E11  
 <400> 7915

attcncaggt cgacattgtc tggaaaagat tagagaagct caaaaggatg acaaagaaat 60  
 tgctgaaata aaggagaaga tgagtgaagg aaaagctaaa ggttttcgtg aggtcgagca 120  
 cgacaccttg tggttcgagg accgtgttta tgtgccaaac aatgcagaga tcaggaagtt 180  
 gatacttcag gaagcccatg agtcgccata ctcggtacac ctcggaaca ccaagatgta 240  
 tttggatttg aaggatcggt tctagtggac tggaatgaag aaggatattg ccgagtatgt 300  
 agccgtatgt gatgcatgtc agagagtga ggcagaacat cagaagcctg caggattact 360  
 gcagcctatg cccatacccg aatggaagtg ggataagctt ggcatgggtt ttatcaccgg 420  
 a 421

<210> 7916  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-E3  
 <400> 7916

attccaaggt cgacggggac gttgaaaagc tgaatggcag gatagtgaag tggctgaagc 60  
 ccggtgggca tattttcatc agggagtcct gcttccacca gtctggggat tccaagagga 120

aagtgaaccc gacgcactac cgggagccaa ggttttacac caaggtgttt aaggaatgcc 180  
 actcctatga ccaagatggg aattcctttg agctttctct ggtaacttcc aagtgcattg 240  
 gagcttatgt gaagagcaag aagaaccaga accagatatg ttggctatgg gagaagggtca 300  
 agtgcacaga agacaaaggc tttcagagat tcttggacaa tgtgcagtac aaatccactg 360  
 gaatcctgcg ttatgagcgc gtgtttgggg agggttatgt cagca 405

<210> 7917  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-E4

<400> 7917

attccaaggt cgacgggccg tgctgacgtg cccaggagaa gaagttgatc cagcaggtgg 60  
 tgttcgccag ctacgggaac ccgctgggga tctgcggaac ctacacggtg ggcaaatgcc 120  
 acacgccccaa ggccaaggag attgtggaga aggcgtgcgt ggggaagagg agctgtgtgc 180  
 tggccgtgtc gcacgaggtg tacggcgggg acctcaactg cccgggcacc acggccacgc 240  
 tggccgtgca ggcaaagtgc tccaagaggc agaggaccgc cgagcaataa gtaagctaag 300  
 ctcagatatg tactgctatg tagatcatct catcaccttc acctttgccg accatggtct 360  
 ttttcatgct gcttgttt 378

<210> 7918  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-F1

<400> 7918

ttccaagggtc gacctcgtcg atctaggggc cagcgccgcc ggcagccgga ggcgcacgt 60  
 cctcgtccat gccaccacgt tgctgcaccc ggaccaagga ggaggggtgag gcgccacgt 120  
 gtcatgccct cgtcaaggag gaggaggact ctgactaagc gtgggcatg ccggagccgg 180  
 gcttaaggaa cagcgccct cgggaggccc ctcccgttgt ttgttttttg tttcctgcat 240  
 taagagtcac gaagagcccc atggggcgtg taatgaactg tggcgcttgc acctttatat 300

cagtgtttcc cgcccatatt ctaggattta cattgttact aattgaaagg ttcctgcctg 360  
 gcgcgattag gataacttag cttggtgcgc ctgtgaccct tggcgggtcc ctgcgtcaag 420  
 ggggcgcgct cctccggaa 439

<210> 7919  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-F11  
 <400> 7919

ttcctagtcg acgggaacgg cttcatgcaa gtctgatcga ttcgaagcag gttgagttca 60  
 gttcagctag aggaagacga aggcgtttcg atcagtcga tctcctgctc cttttacatg 120  
 atgattacta ttatcttaat cttagtgcac gtgtatgtaa tatgcaccat gaattggtag 180  
 tgcagcgcag tgcagcacag cacatctctg aacctgggaa ggtactacta gctttctttt 240  
 cactcagaca agtcgggagg gggtttcttg tcagttagtc ggtttctggc ttgtcagtag 300  
 ctgtggtgcg tgtcgtgtgg atcgagttag ttgtactacc agaaattcgg aatgacatgg 360  
 aaaccatgca tagcatagca aaataaaa 388

<210> 7920  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-F12  
 <400> 7920

atggctatgg aaatgccatg ataggtaggt atggtggctg ttttgaggaa ggtatatggt 60  
 gggtttatgg tgccggcgaa agttgcacga tactagagag gctagcaatg gtggaagggt 120  
 gagagggcgt ataatccatg gactcaacat tagtcataaa gaactcacat acttattcca 180  
 aaaatctatt agtcacgaa acaaagtact acacgcatgc tcctaggggg atagattggt 240  
 aggagaagac catcactcgt ccccgaccgc cactcataag gaagacaatc aataaataaa 300  
 taaatcatgc tctgacttcg ttacataaca gttcaccata cgtgcatgct acgggaatca 360  
 caaacctcaa cacaagttat tatacaatcc acaactactc a 401



<210> 7921  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-F2

<400> 7921

```
attccaaggt cgacggggtc gcagctcgag gcccgcgccg tcggggtcaa ggtcgtctgc   60
cccatctgca aggcgcaact ggccaacgag aagcagttga ttgatcacta tggatcaaag  120
catccaaggt agaaacctcc aggtccatca aatgcagagt gactgatgcg aagtggaagc  180
atgagctata ctttgccctgt ttctgagggt gttcaatctg ctccacactt ggacgacttg  240
agcctcagct ttaccctatg taatgcatgc atttccactt gttccaggca agagcctttg  300
atgaccatgt atttgccttc tatgagtatc tttgtccaac tgtcaacata ctttcaaact  360
gtatgtgggtg caatctttgg ataagagaat gctaaacttt tttccaaaaa aaaaaagtaa  420
ggggg                                           425
```

<210> 7922  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-F4

<400> 7922

```
tcatccgttc gttaccgggtc tcatgtagtt tttgctttgt ttggtatggt cgttgtcgggt   60
ccctcaaaaa aaaacaatag tgagtgtaca tggatttgaa ccatgggttc gaggactcat  120
gaaccaactc atccaaccaa agattctgca gaaagagagg gagcttaaac cgtctcgcca  180
tatagggtggc attcatttac gttttggaaa catccatcat gtacgattcg ttttttcaaa  240
cctcctccct atatgtatgt tgtggaccac agttgcgggc gtgttgcgcc aagggttgga  300
gctccagcgg aaagaacggg agatggggct actagaggcc gttatccggg aaa           353
```

<210> 7923  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-G10

<400> 7923

attccttgggt cgacggggac tccgtgacga tataacttggt ccgaagggtta ctttttgagt 60  
tgagtcgatc ccggaacagg agccatgcaa agatcttcgc gtgatttggga acgcgtgaag 120  
accagatggc aatggcatgc atgtcgtcgt cgtcatcgtg ggagcccatg gttagcgcgt 180  
atgctgccct cgtggagatt catcatcacc acccttgatg tctctcccgt ctccaccttt 240  
caccttggca ccaacaccca acatcaccca cgcagtaatc catctatagt tctgcacaca 300  
aaggccgggg aaaagacagg cacaacagct acgagctcat gcacaggatc atagtctggc 360  
atgaatttca cctgattttg ttcacgcgaa tgatgcaaca gtacttggtg gatcgtgggtg 420  
aactgtatat ttaattttct cctcaagg 448

<210> 7924

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-G11

<400> 7924

tcgacaccgc cacattaaca accctaaaga acgaagccgc ataataaat agataggagt 60  
aaacatacac tagtagaaca tagggctttc gttcggggcca aataagcccc ttagtcccgg 120  
ttcagtcatg aaccgagacc aatgggggca ttggtccggg ttcgtgaggc taaaggcatt 180  
agtcccgggt caaatgggac ctttagtccc ggtttgagac acgaaccggg actaaagggt 240  
gcgatgccct ttagtcccgg ttcatacctc aaatcgggac taaagattag acctttagtc 300  
ccgtaggcct gtttgcaa at ttctagaatc ctcaaattct aaaaggaaaa aaagttatgc 360  
tcaaaatttc atttttatta aaaaaatttg gttaaactctg gtcaaactaa ttattcaag 419

<210> 7925

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-G12

<400> 7925

atccccgagtc gacgggggtga tcctatggct catcttgtca agcgcaaaga tacagacttt 60  
 cttctcaatg acttgggaga tgatgaaaag atgaaggaat ctggatttat agttcctcaa 120  
 aatgtacctg ctcacagctg gctgaagcgt ggggtagatc ctctccaaa ccgttatggc 180  
 ataaaaccag gccgtcattg ggatggagtg gaccgcagca atggatacga gaaggacatg 240  
 tacaagctaa agaatgacaa gcaggccacg gagcaggagg cctacctttg gtccgtcgca 300  
 gatatgtgag cgccgcagct gtccaagaa catgtccgat ggcatgctga ctggatcagt 360  
 tgctgagggtt gcccaatgtg cctgaaagga aaggaagcga tgcccttgaa catcatttct 420  
 tcgaacacat gatgac 436

<210> 7926  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-G4  
 <400> 7926

tcgacggggtc ctcttatga gtggcggtcg gggacgagcg atggtctttt cctaccaatc 60  
 tcccccccta ggagcatgcg cgtagtgctt tggtttttga tgacttctag atttttgcaa 120  
 caagtacatg agttcttttg actaatgttg agtccatgga ttatacgcac ctcaaccttc 180  
 caccattgcg agcctctctt gtgccgcaca actttcgctg gtactataca cccagcatat 240  
 accttcctca aaacagccac catacctacc tattatggca tttccatagc cattctgaga 300  
 tata 304

<210> 7927  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-034-Q1-E1-H1  
 <400> 7927

ttccaagtcc acggggcaga aggatccggc tccgacatac cactctgaac gcttacaatt 60  
 gctgtgctca tctctgctct tcctgacggc accgttgctg tttcaccata gaaggaatac 120  
 caccacaagg tggatgagat aaccatatgg cactatcctc tgatcacact cactcttgac 180

actcaagcat tgaacatca gtagtttagc tcacctctga catcactgac ggtatccgcg 240  
aattttcctt ggaccctatc gtggaaaatg ctgtatcatc aaaaatgcta tagccaaagt 300  
ccaaaaattc atc 313

<210> 7928  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-H10  
<400> 7928

tctacgggga cagcggtaat gatgatgaca gtgatgagga caacagcgaa gatgactctg 60  
gtgatgatgg agcgttgatt cccatggagg atgattctga tgacagtgag gatggtgatg 120  
attcctctga tgatagcgag gatagctctg atgaggagga agaagaaaca cccaagaagc 180  
aagagactgg gaagaagatg gcggttgaa gcgtgttgaa gaccctgtt actgacaaga 240  
aggccaagat tgcaacaccg tcaggccaga agacaggtga caagaaggga gctgtccatg 300  
tggcgactcc gcacccggcc aagaaggcgg gcaagacccc agcaaccagt gagaagtcgc 360  
ccaagtctgg agggctctgc gcgtgcaagt cgtgcagcaa gacattcaac agttagggcg 420  
ctctagct 428

<210> 7929  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-034-Q1-E1-H12  
<400> 7929

taggacgtgc gcaatccggg ggactcggac ctgcagctgg agcggatcaa cgtctactac 60  
aacgaggcca gcgggggccg gttcgtgccc cgcgccgtgc tcatggacct cgagcccggc 120  
accatggact cgggtgcgtc cgcccccttc ggccagatct tccgccccga caacttcgtc 180  
ttcggccagt ccggcgccgg caacaactgg gccaaagggtc actacaccga gggcgccgag 240  
ctcatcgact ccgtcctcga cgtcgtccgc aaggaggccg agaactgcga ctgcctccag 300  
ggattccaag tttgccattc tttgggagga ggcactggat ctgggatggg cacccttctt 360

atttctaaga ttagggagga gtaccctgac cgaatgatgc tgaccttctc t 411

<210> 7930

<211> 291

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-H4

<400> 7930

cagcgagtga tggcagtaac tagtaggaat taagaacaaa cctattctat gcaataaaaa 60

attacgacat agtaactaag aataaaccta cactatacaa taaaggattt aaggatatatt 120

gcatccactg ggcacgaag ttcgccactt gtgatcataa agtgcaacga agaagcagat 180

tacaaaaact tggcaccatt gcagcgtaat aaaataatac tgaaccgaga ccacttccaa 240

gatagttcaa gaaaggttag ccttgccggg gaactgctgt gcaagctgct g 291

<210> 7931

<211> 391

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-H8

<400> 7931

cgggtcgacg gggcccagta ctccgacggc gaggaccagt ttgtgccggc ttccccgccg 60

gtgcggagac tgaattctga cagcgtctac gatctgtcgt ccatgaaagc agagctctct 120

gtcaagaaag gagggttgtc caagtactac gacggaaagt cccagtcgtt cgcgtgcatg 180

tccgaggtga ggtgcctgga ggacctgccc aagaagagcc cctacaagaa gatcaagtcg 240

tgcaggagca acatcgatct ggacgggaac cagaaagcct gccccgtacc tggttctcac 300

aacagcaaag gaatggccaa gccctctgga agctcttgcg cgaatctgat ggcccggaat 360

aacagcgcaa acatgctcta caagcctccc g 391

<210> 7932

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-034-Q1-E1-H9

<400> 7932

tcgacggggc gactggaaaa ggcacgcttg gaagggactc aataatatgc agggacggat 60  
attcttagtc tcaagcacac tacacagttc tacagaactc taccttggtg accccgtatg 120  
tcgatgaaca caagaacagt ctgcgctcca aacacccgga gcagtgcgac gactggatta 180  
catgtgaaca cgtcaggact ttcagcagtt ggttggaac acgtctcaga ggtgacagca 240  
ctgtttgtga tgagctgtac ttgttgcca ggggaccatc ttcgactgta atgatttgga 300  
aaggatacga gataaatggg aatacathtt acatgattga ccaagatgaa aagagcacca 360  
acaaaaacag cgggtgtccgc tttgatgcag caacctacaa tggaaatgac acatattatg 420  
gttacatagc aaacatatgg gaacttgact aacgggta 458

<210> 7933

<211> 263

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-A12

<400> 7933

tcgacgggga aaaatcaaga aaaataaaaa taaaaaaaaa aataaaaaaa aaaaaataa 60  
aaataaaaag aaaaaaaaaa attaaaaaga aaaaaagaaa ataaacaaac ataaataaaa 120  
aaagaaataa catcaaaaaa agcgctgtc ttaaagtttc caaccttctt tacccttcca 180  
gacaatttca acctccgcaa aattttcccc acatattcat ttaagggacc ttctttttac 240  
aagctcttga tgggaaaacc ctg 263

<210> 7934

<211> 346

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-A2

<400> 7934

acgggggttg gtataataaa aactatcaca gaaagtgaat tggatgctat gatcaatttg 60  
atgcttgata attgttttga gatatggagg tagtgatatt aaagtcatgc tagttgggtg 120  
attatgaatt tacagaatgc ttctgttgaa ttagcaagtc tcatagcatg cacgtatggt 180

taaagttgtg taacaaattt gaaacatgaa gtgtacctgg cttgagcatc cttatgagtg 240  
 gcggtcaggg acgagcgatg gtcttttctt accaatctat ccccttagga gcatgcgtgt 300  
 agtacctgat ttttgagtac tttcaaattt ttgcaataag tatatg 346

<210> 7935  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-A3

<400> 7935

gaaacagaat ggggtgctctg tttctcacat cgagtgtctt gtcgagcaga actactgatc 60  
 gtgatcgccc cgagcacggg cggggtatat attgaccatc gagtgtcatg ttgtttcgct 120  
 gtgctggggg tttgttgctg gggttttgtc gtcagatttc accagctcgt ttctttctcc 180  
 ggttctttgt ttctttcaca cggtaaatgc agctaccact cgattcttgg cgtttggtgt 240  
 ttgtaaagaa gatcgtagct tgtaagtaaa atcgtttgca gtgtaaaatg taaaaggta 300  
 gcatggg 307

<210> 7936  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-A5

<400> 7936

gggccgacgg gttagtgaat gtgccatgta gaaactacag gataacgtat ggtgatagtt 60  
 aatttgatgc tgcigaaaaa cagaatcgtt atgcgcacga ttataatttt agtaatttac 120  
 agaaacgtgc gtttgcaatg attcgtttct cggtagatga atgtacaaat tatccaggac 180  
 atcctagttt ggtaggattt tttaagttcg agacgtttgc gtgacataga gattgctaca 240  
 gactgttctg tttttgacag attctatttt tcgtgtgttg tttgcttatt ttgatgcgtc 300  
 tatggctagt acgtaagggt aataaacata cagaacttgg aatac 345

<210> 7937  
 <211> 441  
 <212> DNA





<223> unsure at all n locations  
<223> Clone ID: LIB104-035-Q1-E1-B3

<400> 7939

aagaattcnc aggtcgacgg ggtctāgcag aacatctctc acagattttg ccaactgattc 60  
gtgagtgggg aagatataga tgccaggcgg gatatggtga gatacaatgc cgatgtctaa 120  
cgacagcagt gggctgagcg acacgggctt ctgtccagcg acgccaagaa agaagcggta 180  
atgacggggcg ccgaccagtc tacgcgtatt atgggtcttac agtccaattt tgtgtttttc 240  
atatcaacat gattgtttta ccgtcaattt tctgaatatt gttagtgact aactattttcc 300  
taattttggt tatttaggtt gaatgttggt tcattcccca cgcggctgaa tccaactcgg 360  
tctttatcct gccttgaggt tctctctcat aactgaagcc acgaggtatt cgatttatcg 420  
gatttcgagc tacctgc 437

<210> 7940

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-C1

<400> 7940

aattccaggt cgacgggggc gaccggagga ggaagaagag gagcaagatg tcgtcgggtg 60  
tcagcggcga tgagacggcg cccttcttcg gcttcctcgg cgccgccgcc gcgctcgtct 120  
tctcatgcat gggggcggcc tacgggacgg ccaagagcgg ggtcgggggtg gcgtccatgg 180  
gggtcatgcg gccagagctc gtcataaagt ccatcgtgcc cgtcgtcatg gcgggtgtgc 240  
tcggaatcta cggcctcatc atcgccgtca tcatcagcac cgggattaac cccaaggcca 300  
agccctactt cctcttcgac ggctacgctc acctctctc cgggctcgcc tgtggcctcg 360  
cggggctcgc cgccggcatg gccattggca tt 392

<210> 7941

<211> 365

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-035-Q1-E1-C2

<400> 7941

gacgggcacc cgcacctct caccaccatc gccaaactgc caccctaata aaaaggggaa 60  
gcacgtcat aaaaagggaa aggcaaagga taagtccaag cgtcacacat acaaagaggc 120  
aactggcact gatgtggctt cagatatccg agaaaacggc aaggaagagg ctgtgatacg 180  
catcgcggaac gacggggaat gccgcaagag caacaaaggg aanggccgcc atgangacaa 240  
gaacaacgtg aatgtttcaa tcgtttccgg cagcatagag aacggtgctg gtgacgagca 300  
tgccaacaag tcgggctcaa tggcaatgaa ccctcgttcg gaagggtcca ccgacaaaact 360  
caatg 365

<210> 7942

<211> 245

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-C5

<400> 7942

agcatcgagc gatagcacac ggatgtccag attgctcaga tcaacgacaa ccattatctc 60  
ctacggtaac tggaaccggc tcacatcatg caaactctac gacaacaccg caaccaagac 120  
ctacggtcag ttcacatac cggcgtctt ctggatccat gctaagtctt cttacggttc 180  
agctcagatc acttcgaggt tgcttcctac agtctatcag cgggccttat attccactct 240  
tttaa 245

<210> 7943

<211> 201

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-D6

<400> 7943

cccggtgga caagggtag ataaaggtag tgtatcatac ttgaaagatg aactgtacgt 60  
ggcttgtaga tcggtacaat tggcggtcgg cgacgagcta cggcatttca ttaacagtcc 120  
atgcctgat gagcatgccc gtcatacttg acttgggatg aattccagtg ttttgcata 180  
agtatagcat ttctctgggg g 201

<210> 7944  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-D7

<400> 7944

cggtcaggac ttcccgggcc gacgggtcct ttagagtacg aggtagtgtt attttgaata 60  
 aatagggtgaa ctctcatgct tcaattatat tattttgaga gtcttaaaca gcatggtaat 120  
 ttgcttttgt tatgaattta gtcctaatat gataggcatc caagagggat ataataaaaa 180  
 ctttcatata agtgcattga atactatgag aagtttgatg cttgatgatt gttttgagat 240  
 atgaagatgg tgatattaga gtcattgctt ttgagtaatt ttgaatttga gaaataacttg 300  
 tggtgaggtt tgcattgtcc gtagcatgca cgtaaggtaa ccgttgtgtg acaaatttga 360  
 agcatgaggt gttctttgat tgccttcctt atgagtggca gttggggact agcgatggtc 420  
 ttttcctacc aatctattcc ccta 444

<210> 7945  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-035-Q1-E1-E3

<400> 7945

gacgggacac taaaagtcaa aaggtgttac atcacctcaa cttggggcca ttggccttgt 60  
 acgacctaga tttagtttta ggctgccttg ggacgtcctc ccacatcctt ggccgccacc 120  
 ctttcctcct atataagtag atccatctag tagcttttcc ttgggatttg tttagttaaa 180  
 agttagccat tgcaacttcg tgtacttcgt ttgtgtccaa cgaccagacc aagaccgctt 240  
 ccggatcccc accattatca atacttcata tatattcgca atactcagat tgctttatca 300  
 tattcttgct cgttcttcga ttgcttgagc gaatagacct tcgtggtcag gttgatcgtg 360  
 ctccagcgtg gtcaataacc tctcggagtt ggtttagcga ttgcaaaggc gcaacgtcgt 420  
 gcac 444

<210> 7946  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-E4  
  
 <400> 7946

attccaggcc gacgggtata tgcactagct taatggcttt aaagaaagcg ctgccaggga 60  
 gacaacccgg aagtttttagg gagtcattta tttctgttga gtgctttcat atagttttaa 120  
 aacaacaaaa ataaagaggg gaacccaaaa ctttttcaaa aagaaaagcc aaagtgagaa 180  
 agacaagcaa tgtgtaaaat ggagagaccc ctgaaactgt gtacaggcac acaacaactt 240  
 tgagaaccga gataacagaa acttttcaac aaaaataatt acccccggtgt acaattccat 300  
 tgtattataa aaataatgtg ccagggtttg ccttttaggat gtttacattt gcttgatggt 360  
 ttgtacggtg caagacagaa actttggctg tantgcgcga ttttacattt ttagctggaa 420  
 cgtcaaattg ttctgattct ttttgcac 448

<210> 7947  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-F7  
  
 <400> 7947

ggtcaggact tcccgggccc acgggaccgg cagccaccga gcctctgaag gacgagctct 60  
 gagcatcggg ctgtctagca gcagacaggt aaaggagggg gaaacatgtt ttggcaaggc 120  
 agcttccaac gccagatttt gcgagggggg gacgatagtt ggtcgttggg tgtgttggcc 180  
 ccggttttgc ctgattctgt atcccgttgc gagaaatact gtaacaaatc cgtcagtggt 240  
 gtacctagtt aaattatctt caagtacag tagaaatggt tcgtggagag ctttggtaat 300  
 aatggcgct tctgtgcttg gaaaagtac ctattccaac aagacacgaa ccggatgctc 360  
 aataggatat aggcacaca 379

<210> 7948  
 <211> 281  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-035-Q1-E1-G1

<400>      7948

ggtcgaggac cagcgatggt cttttcctac caatctaccc ccgtaagagc atgcgcgtag    60  
tgctttgggtt tttgatgact tctagatttt tgcaacaaat atatgagttc ttttgactaa   120  
tgttgagtcc atggattata cgcacctgac ccttccacca ttgcaaccct ctcttgtgcc   180  
gcagaacttt cgccggatag tagaacccca ccatatatct tctcaatac atgccaccat   240  
acctacctag tactgcattt tccatagcca ttctgagata t                            281

<210>      7949

<211>      344

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-035-Q1-E1-G11

<400>      7949

ggggatcact atgatgagtc ggattacgag gaagaagatg aagaggaacg acgatgacga    60  
cgaagtagta ttagtactcg atgaggatct agatttagat gacgagtctg acgacgaata   120  
cgaagatgat caggacgagg aggacgagga gtaagttcaa taactgtaag actactaacc   180  
tgatgaagca tattcagatg tcgaatacta acaccattca tatgcagacg attatgttta   240  
tgatgaacat gacttttgca tcaagggctc ttcacgggcc gttattagct gcctctcttt   300  
acgatcctag cttaccttcc ctttcttgcg atttcataac tctt                            344

<210>      7950

<211>      396

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-035-Q1-E1-G4

<400>      7950

atccaaggcc gacgggactc tctacttttg cttcccaactg atattgtggt ggctgataat    60  
tttgctgcag atgctgagag caagattggt cctgcctctg ctattcctga tggttggatg   120  
ggtcttgacg tcggcccgga ttctatcaag aaattcagtg aaactttgga cactaccaag   180

actgtcatct ggaatgggcc gatgggagtt tttgaatttg agaagttcgc agctggcact 240  
gatgcgatcg cgaagaagtt ggctgatatc acagcaaaaa ggcgtgacaa ccatcatcgg 300  
cgggtggcgac tctgttctg cgcgcgagaa ggcanggttg gtgagtaaga tgagccacat 360  
ttcaaccggg ggtggcgcaa gcctggagct gttgga 396

<210> 7951  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-035-Q1-E1-G5  
<400> 7951

ggtcaggact tcccgggccg acggggagca caagaaggac ggcgagcaca aggagggcat 60  
gatggagaag atcaaggaca agatcagcgg cgacggccac ggcgacggca agaaggacgg 120  
cgaccacaag gagaagaagg acaagaagaa gaagaaggac aagaagcacg gcgagggcca 180  
caaggacgac gacggccacg gcagcagcag cagcgacagc gacagcgact gagccagctc 240  
cggccgcgct cgggcagcag cgtgcagtgt aggcgagatc gatgaacgct tgggagaagt 300  
gtggcataca tatatgttgc agggtttga gcgtgtggta gcatatgtat gtaatgcgtg 360  
acatgtctca tggatcttgt gatgtataat aattagccgg ctgcactgca ctgcacggtg 420  
cttgaataa taacgttaat gaatcatgt 449

<210> 7952  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-035-Q1-E1-H1  
<400> 7952

attccaggcc gacgggacaa gcacaagana aatgatgccc tgcccaaaga agataaggat 60  
caacttgca gaaaatgctca aaagggccat gcagagccaa aaccactgcc tagcttcaag 120  
aattttgtcg tggaagagga ggaagggatc ggaggttatg ggatcgttta tagggctcgg 180  
agaagcgaag atggaaaagt atttgccata aaatgtcctc gtgagaaagc tcattcacat 240

catgttgaca atgaacgaaa gatgttggaa cgatttggag gcaagagttt tgtgattaga 300  
 tacgaaggct gttttaggag tggatgaacta gactgcttta ttctagaaca tgtaagcat 360  
 gacagaccag agattctcan nagagaaata atgtctttga gttgcagtgg tatgggtatt 420  
 gtctgttcaa agctctttca ag 442

<210> 7953  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-035-Q1-E1-H2  
 <400> 7953

ggccgacggg gtgtgtaagt gacatacatc tacatgctaa atagggtttt cacgaagaga 60  
 ttgttcatgc gagataaaga gcgatgtgcg ggccttgagg tgggtanggg ccaggtgagg 120  
 gtgtcaaaat gtgtgcattg atgcatgtgt tacatgcgat tgtgtgaggg acggacgaat 180  
 cgagagagat ggttgtttgtg ttatggatgc tcctctctgt ctctctctct tgcacacaca 240  
 caagtacaaa tagaagaccg ttctctcatg tatacacaac gtatcgacat ctctctatgt 300  
 ctcaactcatg catgatcatt tgcacattca cacctctcta tgtctctatc acacacacag 360  
 tctccacatt gcccttccgc cacaacacac atatggacac atacacacgt tctctctcag 420  
 tcacacacac aaaatcagta tta 443

<210> 7954  
 <211> 301  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-035-Q1-E1-H3  
 <400> 7954

attccagggc cgacggggtcc ataattatta gctagatgga tcctcccccc ttttgggatt 60  
 ccaaaacaag gttctcccc tctcttatgg aatcaattc gatgtaacc tttttgcgg 120  
 gtgtttgtcg agatccgatg aattttgggt taaggatcaa gtttacctat gagaaatatt 180  
 tgaatctcct ctgaattott taatgtatga ttgagttaaa tttgcaagtc cttttgaatt 240  
 atcagtttgt tttggcctac tatattgatc tttcttgcca tgggaaaagt gcttaccttt 300

<210> 7955  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-H4  
  
 <400> 7955

gacggggcaa ccactacatc aagccgccga acctggcggc gaagctgac acgaagcggc 60  
 tgtacgcgga ggaggcggag tggaagaact ggggtgtggca ctccgagggg gacctgatgc 120  
 tcaacgacgc cgtcttcgcc gacagcgggc gcccacaacca gaggaagttc gagaaggatg 180  
 acctcatccc gcccaagccg ggtatgtacg tcaccaggct caccgccttc gccggctgct 240  
 tgccgtgcaa gcccggaag ccctgctaaa ccttggtggc cccgcgggcc ggccggagcc 300  
 gatcccttcc gaatcttcaa ttctatagct ttgttcaatt cttttactca aagattcgtg 360  
 catgtattac taggacattt gagtagtcta cgggggttcag atcagagggc cctgtaggtt 420  
 gtccttgtac gtgcattcgc cg 442

<210> 7956  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-H6  
  
 <400> 7956

ttcccgggcc gacgatatca tagacgcgtc ccgtccattt gctggatgac aactgcacga 60  
 acgctgggcc gacacgtgga tctgctagcg aatgagaatt ttacatgtgg aaaatcccca 120  
 ttggttcggg ctgttaatgg gttatcggat ccaaagtgga acccaatagc ttaacaacga 180  
 cccgttacga tggatgccac gtgtcggta cccttgacga aagcacttct atgacgcgtg 240  
 atttatcatc atggaagtgg acacttccgt tatgataatt ttggtaatgt catggaacac 300  
 ttctacgaca gcacaagtat gactatcttg atcctgtcat aaaatcgtca tggatttaca 360  
 tgcattgacag aaaacgtgac ctactgtgac aaacacgtat caacagggaa gtgtattttt 420  
 tgtagtgcac tgacatggta taggc 445



<210> 7957  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-H8  
  
 <400> 7957

tcccgggcag acggaagaa aaatgattaa cacatgcgtt gtgtttataa tcaaaccgca 60  
 actaaaataa taattattgt aagaatgtat acttggagca atagatatta aatgttacia 120  
 tgggtgtttct cacggttcct tttccaacat tatttgtgtg tgcatgtgtg ttttgtaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaataaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 240  
 aaaaaaaaaa accaaaaaaa aaacaaaaaa agaaaaaaaa aaacgggccc cccaaaaggt 300  
 tccaatctaa cttacccttg aatgcaatth aaaaccctc caaaa 345

<210> 7958  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-035-Q1-E1-H9  
  
 <400> 7958

tcgacggggc ctaacgtgta gtaatatgtt acttgtacgt accaaatcaa ttcgcacttt 60  
 cctcaaccaa aaaaaaaaaa tgaaagcaat aagaggcaat ggatatcgtt tcgtcccaaa 120  
 aggtgggaca ttccctaccg aaaaccatca tgcttgttgt gagaagctcc ggtttgtgag 180  
 aagcgtatac ccaaacctgc cccaaatggg acaaaatttg taccacggca tgttgatgcc 240  
 gtcocatgat agcatgccaa gtttcttgaa tttcagatga cttttggatt tacttgaatt 300  
 taaaaaccag gcattctaat gttttgctgg caatcaacgg tgccctgggtg ttcgaaattc 360  
 attcccattt cttgcatggg acctaagcat gcaccaagg acacagattt ggthtttc 418

<210> 7959  
 <211> 196  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-A12

<400> 7959

ggcataaatt tgctgtcaac gcaacaacta tgagatgact gtatcttcca tactacatgc 60  
attataggaa gttcccaaac agaatggtaa aggtttatac tcccccaacc accaacaagc 120  
atcaaaccaa ggcttgctcg aaacaacgag tgcttccaac taacaacagc cctgggggag 180  
ttttgtttta ttattt 196

<210> 7960

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-A2

<400> 7960

gtcgacggga cccttgagag ccggacacac tggtcgaaca tataaagttt gatcatggtt 60  
atacctcgaa gagtccagca attgtcaatc tacttgagat catgacagaa tttactccgg 120  
agcaacaaca tgcattctgc cagtttgtga ctgggtgctcc tcggcttcca cctgggtggct 180  
tagcctccct aaatcctaag ctgactatcg ttaggaagca ctctctgact gcggcggaata 240  
cttcaaatgc agctggagca gcagagtctg cagatgatga tctgcctagt gtcatgactt 300  
gtgccaaacta tottaaactt ccgccatact cgacaaagga ggttatgcac aagaagctgc 360  
tttatgctat caacgaaggc caagggctcg ttgatctttc atagtgggtt caaaactaac 420  
atacagatgg ttggtgcaca tgt 443

<210> 7961

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-A3

<400> 7961

gattcacggg tctccgggaa ttgagtaaac ctctgcactt tggggggcaaa caacttccta 60  
actaagagga aggctaacc taaaaacata aatccttgaa gccccaacct ccgttactag 120  
tttctacaa agctctctct ctctctctct ctctctcaac gctaacccta ccctccacac 180  
gaacgctctg ctttcaactgg acaagtccgc ctccgttgcc gctagctatt cttctagtgc 240

ccggaccggt gaccatccct tctctgataa tgtggaacag atatgttaga agctccaaaa 300  
attgaatgtg ttgcacgagc agcgagcacc acacttgtgc tagtgcagct tgtgggacgg 360  
gacagggatc cccgcaagaa taaattactc aataggtagc ggggacacgg acgagaatga 420  
gcagcggaca tagatgagtt 440

<210> 7962  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-A4  
<400> 7962

gtcgacgggg tgaagaaaga gaacaacaac atgcagatcg agctcaggca tatgaaaggc 60  
gaggatgtga actccctgca gcccaaggaa ctgatcgcca ttgaggaagc tctcacgaac 120  
ggccagacca acctcaggga caagatgatg gaccactgga agatgcacag gaggaatgag 180  
aagatgctgg aggaggagca caagctgctg gctctgagga tgcaccagca ggacgacctg 240  
agcagcggca tgagggagat ggagctcggg taccatcagg gtagggattt cacttcccag 300  
atgccgttca ccttcgggct gcagcccagc caccccaact tgcaggaaga caagtaggcc 360  
accgaatcct gccacggcct gtgtcaactg aagctcctct acctgc 406

<210> 7963  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-A5  
<400> 7963

gggtcgacgg ggaaccatag catcattcga cacacatcca tcgtccggtc ggatgggaat 60  
ggattctgga gaggcgacgg caggggtctc tgcttctctc cccgggtctca attttttggc 120  
tcgagcagta gtttgtctac actccgattg atcgatcgat ccacacgacg cgccatgtgt 180  
atatgttacc cgcaccaacg tccctctctc ccaagtggac atagtgtgga gctcagctgt 240  
aaatatggtg ggacatttgt gcttcggcct cctgcaaaag ggatgagccg tgcggcagat 300  
gcgattgctg ttttttcatc atcttcttct tctctctgtt ttagtttcaa tcaactggacg 360

tcaccatgtc tgacactctg accgaaactg tgaattgtca aaagaacgaa atttggcgga 420  
ctggtaaaat taatctggg 439

<210> 7964  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-A9  
  
<400> 7964

ggcatgggcg gtatgcctgg catggaaggt ttgggcggca tgggtggcat gcccgcatg 60  
gaaggtttgg gtggcatggg tggatatgggt ggtctggctg gtatgatggg tggaatgggc 120  
ggtatgggtg gtatgggcat gccgcctggt atggaagggt tgggtgggtat ggggatggat 180  
gattttgagg atgagagtga cgacgaagga gaagtgtcga aacctcaaga cgcaggggaag 240  
tctgatgctg cggaaatctc cgaggtggaa ggcaaagctg gcacagctgc tcagagcaac 300  
tgaaggcttt ctactcaata atccctactc gactgtatcc tagcgttttt ttatcaacgt 360  
gctaaactga aggacaca 378

<210> 7965  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-036-Q1-E1-B3  
  
<400> 7965

ggtcgatggg acgccccagg ttgactcatg tcaatggcat aatcaactag cgagcaataa 60  
taataaatct cagatgacaa cactttctca aaacaatcat gatataatat aacaagatgg 120  
tatctcgcta gccctttctg agaccgcaaa atataaatgc agagcacctt taaagatcaa 180  
ggactgacta aacgttgtaa ttcatggtaa aagagatcca atcatagtca taccgaatat 240  
aaattaatag taatggatgc aatgacagc ggtgctctca agctattgct ttttaataag 300  
aaagtgatga ctcgacataa aattaaataa ataggccctt cgcagacgga agcagggatt 360  
tgtanaggtg ctagagctca attttaaagc agagataaat aatattttga gcggcatacc 420

ttcattgtca acataacaac ccaag

445

<210> 7966  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-B4  
  
<400> 7966

ggggttcgct aaaatgagtc ataataccaa tatgaattta taatgagttc attacagtac 60  
cttatgatgg tgaattgctt tctcatacta acggagctta cgagttttct gttaactttt 120  
gtgttggtgaa gttttcaagt tttgggtaaa gattcgatgg actatggaat aaggagtgga 180  
aagagactaa gcttggggat gccaaggca cccaaggta atattcaagt acaacaaaaa 240  
gcctaagctt ggggatgcc cgggaaggcat cccctcttct gtcttcattc atcggttaact 300  
ttacttgag ctatattttt attcaccaca tgatatgtgt tttgcttgga gcgtcattct 360  
atattatttt gttttgcttg atgtttaaat aaaataccaa gatctgaaat tattaatat 418

<210> 7967  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-B5  
  
<400> 7967

gggtcgaccg cctcaaggag cttcacatgg acaagaatga ctattatggt ggagactcca 60  
catcgctcaa tctcaaccag ctatggaaga agttcaaggc cgacgagaca ccccttgcaa 120  
gtataggagc cagcagagac tacaatgtag acatgggttc aaagtttatg atggcaaatg 180  
gtgctttggt cegtgtactc attcactactg gtgttaccaa gtatttatcc tttaaagctg 240  
tggatggaag ctacgttttc aacaaggga agatccacaa agttccctca actgatatgg 300  
aagctctcaa gtctccattg atgggattgt ttgagaagcg aagagcaggg aaattcttcc 360  
tttatgttca agattacaag gaaaatgacc caagtactca caaggggct 409

<210> 7968  
<211> 393  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-036-Q1-E1-B6

<400>       7968

```
ctcgtgggtc gacatcaacc ccgatgataa gtcgaggtac cagaggcact ccgccaagtg   60
gttcaccggc ttctccgtg gggcgagct gaggccgtg gctctccccg gccaggcata  120
ttcccagtga tcttggcaca cttcttcatt cttctgtagc acacggagag gaggatggac  180
ggcgaataag cctgggaaga tggttgggtg ttgtttttgg atggtaactg aattttgctt  240
gggcagtagg gtttatatac aggtctctgc ttctttgggt ttgattgttc ctaaattgat  300
atgtctgtgt tgatgtgtat gcggaaaata ttaatatgtc gatatacaag gtgttggatc  360
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa gaa                                   393
```

<210>       7969

<211>       423

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-036-Q1-E1-B9

<400>       7969

```
gggtcgatgg caatgctgaa atatagtcgc atcaatttct ttcgaattaa tagtttcctt   60
caatattgtt gctatgtact acctcttact aacggataaa ctgttttaaa tagtttcctt  120
caatattgta ctagcacact tccagataaa ctgtactcca acttactaac ggatgagctg  180
cactgaacga cggcctaaag gatggtgagg agaaatgata ccgtacttga gtttcttctc  240
aggagaacca gttttccgtt tacctagtta agatgggtctt ttattcgtct agaattgtca  300
gcactgtgga tgggtcttga tcattacatt atacggcctc atttttacaa aaactgcgtt  360
ctgacgaaag ccgcactcaa caaccggggg tctctcttaa tcttangaga acaatancta  420
tct                                                         423
```

<210>       7970

<211>       431

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-036-Q1-E1-C1

<400> 7970

ggtcgacggg acaccatata atcagtctgc tcattgggac gatttcgtga aattcaagga 60  
ttcagaatta gctaaggaac ggtcgagaat aaacaagaag aatgccgaaa aaaggataag 120  
ttccataagc tggggccagg tgggtacgcg gtggcagtgc ctaagtggga taagtctgac 180  
aaagagatgg aggatgcagg tgtcaactccg gttagtaaga gctggccctc caggtgcagg 240  
acttggttct atgcgcatgg ggggagttgg acccgaagac aggcaatgtt tcgacgaagg 300  
catgtctgaa cggagccgac gatgcgctac ttgttgcaat agaagaggct cgatcggggg 360  
tgttccagcc caacagagag aacgacgagc ttacgcgtgc cctgggaaat cctgaacacc 420  
cgggaagaac a 431

<210> 7971

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-C4

<400> 7971

gtcgacggga actgaaagaa gagtatggcg aagtgtatgg cttggtaaca aaggctctgc 60  
ttgaagttaa cgagtataac cctagtggcc gctatcctgt acccgagctg tggaacttca 120  
aagagaagag gaaagcaact ctcaaagaag ctgtccagta cgtcctgaga cagtggcgca 180  
cacagaagag gaagcgctga gccagatat ctaaattcct gtagtgaact agaagtgcgt 240  
ttctgttatt ttcctcatga atgttggtaa acgtttagtt gtctaggttt ccttggatta 300  
ttcagcctgg tgtagcattg acatgaatgc tagtacttgg agattgtgaa tcgccctttc 360  
aggataatct ttttcgtgcc aagctatgtg ctagtatgaa tgaacggcta ctagtttggt 420  
gattac 426

<210> 7972

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-C6

<400> 7972

gggacaccct atactgactc gtattaacag gctggttagga aaacacttgc tgacaagtat 60  
 gactatgtca tgcattgaaa gctttacaag atttcagagg acaattccag caaggataaa 120  
 ggacctacta aagtggagat ctatgcatct tttggcggcc tcctgatgtt gctcaaaggc 180  
 gatccttcaa gtgctgctaa cctcgagctg gatcaaaggc tgttcctcct catccgaaag 240  
 gtgtaagcgt gtaatctacc ggataaccag tgcttgtagt tcaactcagg ctataccaag 300  
 cctgtgattg tttggatgct aatcgtcctg cacccttatg tactcttttg gcggtaatat 360  
 gactagattg gtaccattct ctgtagctta ttctgttcc cctggagcgc attat 415

<210> 7973  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-C8  
 <400> 7973

ctctggtgggtc gatgggcatc catagattaa ttctgtaatat tttaagagcc cccaaaacac 60  
 aaagggattg gcggcccgcg accaaggatc gaaaacagtg tcacgggtat ccctgcca 120  
 cagattccct tcactatcgc acgataatct ctactgtaca attgcacat agaccagac 180  
 tacacgaaaa atcctagtcc tgcctgaagt gggagtgaag aacggatgca gttgggcaca 240  
 caaaatatga gttattcttt ttctctttta gtctttttct gcattgtcat ctttcttttg 300  
 ttttcttttt tgcgggaaac tttttttca tttcatcat tttcattttt ttctttta 360  
 ttttatttct tatttatttg ttttctttc ttttttattt ccatttcttt cttaaaagta 420  
 ccatttattt tcaaatattt tgacattt 448

<210> 7974  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-C9  
 <400> 7974

gggtcgatgg cgggcgtcta gaatgactcc tactaaggca agggccctga aggtccacag 60  
 cgaggccgag cgccggcgtc gggtgaggat caacgctcat ctacggcgcc tcaggaggat 120



gatccctgat accaagcaga tggacaaggc cgccttgcta gccaggggtgg tggaccaagt 180  
gaagcacctg aagaggagag catgcgaggc cgcacagcaa acgcgggtg tcccaccgga 240  
gaccgactag gtctccattg aattctgcgc eggagacaat gactccagac tgtacatgaa 300  
agcctcggtc agctgcgacg accgcccgga cctcgtcgcc gggctcatcc aggcgtcca 360  
tggcctcagg ctg 373

<210> 7975  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-D1  
<400> 7975

ggtcgatggg tctcgtata gagagtcatt atatgttaga gaatcttcac atagttgcat 60  
aattattcga ctactcattg atcttcaactt atatctttcg gagtagtttg tcttttgctc 120  
tagtgcttca cttataactt ttagagcacg gtcgtagttt tattttgaag aaatagatga 180  
actctcatgc ttcacttagg ttattttgag agtcttaaat agcatggtaa ttttcttaa 240  
atcataatat gctaggtatt caagaataat aaaattctct tatgagtgtg ttgaatacta 300  
tgagaagttt gatacttgat gaatgttttg agatatgagg atggtaatat tagagtcag 360  
ctagttgagt agttatgaat ttaaagaata cttaaagttt gtgattcccg tagcatgcac 420  
gtatggtgaa ccgttatg 438

<210> 7976  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-D11  
<400> 7976

cacgggtcga cgggatatgt gataacttgt cactgaacac agaacgttct ttcttggtt 60  
gcatttggtg taacccccct tgattgttct ttttctctg tcttataatc ctctgattgt 120  
caatccagtc atatattgat gatgtattga tcattgttta tcagaagttt tctacacatt 180  
gctgctggat agagcatcta ttgcaactac aattggcgat atctacacag atctatacat 240

aaaagataat aggaagtaag cttctatagt gtgacgtaga ggtattggcc atacaccatg 300  
aatgatagag gttgtgcagc tgatattcat agtttaatta cttattcctc caaagagata 360  
catattttta gctataatgt gttaccttgc tgacagtaca tcgatatatt ctccaatctg 420  
gttcaactat gcct 434

<210> 7977  
<211> 195  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-D12  
<400> 7977

ggacgatggc attccctaaa atgactcgta ttaacaagag atgaattggt ttgcaacagt 60  
acttacagtg gtgatttgat ttagtacact aacggatcgt accgactttt ctggtgaagt 120  
tttgtctgga taaagtgtcc agttgaggag gtctcgatat gaggaaaagg aagaggcaag 180  
atctcaagct tgggg 195

<210> 7978  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-036-Q1-E1-D3  
<400> 7978

gtccatgggt ctgcgctaaat ttattcatag gatgtagaac accgctgagg agcttgtccg 60  
caggacgagc tgctcccgat gctgcatggc aaccagccg gatctgcctc gacaggttcg 120  
agccctccgt cacgggcccc gtgcacatct ggcagggtgt tgggaagggtg atcaatgtga 180  
acaagatgat cagggccaga tggagtgaag atcctaatac cggaccagag gccgacttgg 240  
caagatcagg aagcagctgg accacaacaa ggacgtcggc ggcggcttct ccgccatgtg 300  
ggattattct ttgaccttcc acaattcctt caggcgtcca taacatcaag cataattttg 360  
gtgtttctta accttttgca ttctactcta atcatttaaa ttgggcctat gactcagaag 420  
ttttttttt 429

<210> 7979  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-D4

<400> 7979

gtcgacgggc ccatgtacag gcacacgatt taaggatgat tccaattact tggccgtttg 60  
cagtctgggg gcttgatatg gttgggcctt ttaagagatc caaggataag aagactcacc 120  
tcttggtggc agttgataag ttactaaat gggtagaggc agagccattg agtaagtgtg 180  
atgcagcaac gatggttcaa ttcatgaaga aggtgatctt ccactttggc tttccacaca 240  
acattataac aaacaatggc actaaccact caaagggtgc tatgaaggac ttttgtcaac 300  
gtgagcatat cgggcttgat gtatcattag tggctcacc ccaatctaag ggtcaagctg 360  
agagagccaa tcaagagatc ttgagaggca tcaagccccg gtttatgggt ccccta 416

<210> 7980  
<211> 289  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-D9

<400> 7980

agacgaaaat cacaaggaag aacacattaa tcgcgccacg ggccttggtc aaaccacttg 60  
ggtggaacaa gaaagatgaa aaaccaaag ttgccgccg aaaactgaag tccaatgaag 120  
agttcaaaaa tctggtgctt aagaagtgat gtccgtaggc aggttagttc gtcggtgtct 180  
tcacgtccca ccaaggacct ctaccttga cctgacctgt ggaatgaatg aatataatga 240  
agtgttaact tgaccttta cgggctaaaa aaaaaaaaaa aaaacaaaa 289

<210> 7981  
<211> 415  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-E1

<400> 7981

gggtcgacgg ggaagaatat tgaacctgtt gaagcacaag acggtataac accggataat 60

gtcccagcag aagagataaa tgacactgaa gccatggaga ctggagaaat ccctcatgag 120  
 agcacagatg acagtttaac agcaagtgca gcacttcctg atattcaaca agtcccagaa 180  
 caagaagcag tcgaagataa ggcattgcact gacaccacag aaaaccaagg ggaacctcaa 240  
 caaagcattg tttctacttc tgctgagctt actccaacag aagaagaaac agcagtagta 300  
 aagcatactc aagatacaca tgtacagaat gccagcagtg aaccgggaac tgacccaaat 360  
 ttgcttgctc aatcagcaca tcaatcagaa ttggctgaag acagcaaggg tcaac 415

<210> 7982  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-E10  
 <400> 7982

gggtcgatct caggtacaaa atcgtattgg taggcctgca ctaccacctc aggtacgaga 60  
 tgatctgcat attcctaaac tgaaattgaa tattccacca tttgagggtg gatatgttcc 120  
 tgatatatat ctacttggg agttagaaac tgaacaatgt ttacatgtt tacaatatcg 180  
 cgaggagaga cgggttgctg ctgctgtttg tgctttcacg agttttgcat gtatatggtg 240  
 gtctgaacat tgtagattat atccgattcg aactacttgg gctgcgttga caactgctat 300  
 gcgtacgcct tgagttccac catattatca ac 332

<210> 7983  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-E2  
 <400> 7983

attctagagt cgacgggacc acacacactg ccgccacggc cgtgaccgcc ccagtgaagt 60  
 cgtcggtgcc agcggcggtg gtgctcgtgt ccgccgtggt ctcgttccac ctcatgctac 120  
 acgcagtgga cctgtcgtcc attagacacg gacggcacgc atgtaattga cacaccggta 180  
 cgcgtgactt gctcgccccg cagcacttat acgatacaca tcagaccgcg aagagaacac 240  
 tcctcgtgaa cagtgcact atcattgcag actccttgcc cgatactcct gttgcggtgg 300

atagtatcgt agtgtttaca tcatcatgga tcacaactga caccttctat cagctaaaga 360  
gtatttgctt agctgcttag tccttcagtc ccacctc 398

<210> 7984  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-E8  
  
<400> 7984

taattagtct tattatgtca tgggctccaa gtcgcaagcg aagaccaagg ccaggggaagg 60  
gcttatcgca aaggaggctg cgcagcggat gaactaagtt tagcattggt gaaccatata 120  
tattcctcat ccttgagtag tgttcaagca tactgtggct gtttggtcc agttttggaa 180  
gtcatttttg tttgtctgag acatcttgga aagaacagt taagaatgaa gtatttctgt 240  
ttaatgccag ttagtatttt tgtcgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaacaaaaaa aaaagaaaaa aaaaaaaaaa aaaagacaag aatcaaaaca acccaccaaa 360  
aaaggggaac acacgggaac ccagag 386

<210> 7985  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-E9  
  
<400> 7985

agcactatag tgaatcatat gaagaaaatg acccaggagc aaatcttagc ctttgagcaa 60  
agcggagaga ttttgttcct tggtcattgc cttacgctag atgatattaa ggtggtccga 120  
cagttcaagc gtccgtgga tgtatcagag aaggaaattg atgccgcggg agatggtgat 180  
gtgttggtca ttttggatct cagagctgat caatcattga ttgaagctgg agtggctcga 240  
gaggttgtaa acagaatcca gaaattacgg aagactgctc agcttgaacc cacagactta 300  
attgatgtgt actacgagtc tgtagacaac agcaatacac ttgaagaaat tttgcagtca 360  
caggatcagt atattaggga cgtgcttggt aattcgct 398

<210> 7986  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-F1

<400> 7986

ggtcgatatc gctctctaca atgagtcgta tgatgggaca aacaaagctg ctcatagcac 60  
 cacatcgctc aatacaaaga ggcttgatga tgatacagag aatcttgctc atgagcgtgt 120  
 gccgtcagac ctgaagaaga gcattatgca ggctagaacg gacaagaagc tcacacaggc 180  
 acagcttgca cagctgatca atgagaagcc acaagtcac caggagtacg agtcaggcaa 240  
 ggctatccca aaccaacaga tcatoggcaa gctggaaagg gctcttgga caaagctgcg 300  
 aggcaagaag tgaagccgcy tgcattctgac aggagtcgag gctttcaaga gagcttggtt 360  
 gggcaagttt accgctaaat aaagcttgtc tactaaatca tgcgacttaa gaaaaccct 419

<210> 7987  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-F11

<400> 7987

cgggtcgacg ggcatataaac aacatcatgg tagtactgct gtaaacaacg tcaatcaggg 60  
 ttagtttcat tcaaatcatg caagtttagag tccaaaacaa gggcaaaagt gtttggaata 120  
 gtagatacgt tggagacgta tcaactcccc caagcttaaa cctttgcttg tctcaagca 180  
 attcagttga taaactgaaa gtaataaaga aaaactttta caaactctat ttgctcttgt 240  
 tggtgtaaac atgaaaagcc agcattcagg ttccagcaaa tattatgaac taaccatact 300  
 cacaataaca cttaggtctc acaattactc atatcaatag cataatcagc tagcgaggca 360  
 taataataaa actcggatga caacactttc tcaaaacaat cataacatga tatagcacia 420  
 tggtat 426

<210> 7988  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-036-Q1-E1-F2

<400> 7988

ggtcgacggg tggccctaga ttgaatcatc atatcattgc tacctcgaag catgactagg 60  
ataccccact catcaataag aacattggag gtgcaatgct aaatgtttct tggtcagtta 120  
tccaaacacc gttgtatggg taacatcttg attaatcctt gcctcttacc taaatggttg 180  
gggtactttct ctcccaccct gtatgccatg ttctgcttgt acatgggaag gatatactcc 240  
taataatagt gtgtaaacac aattttcctt tccattgttc tgtttaatct tataatcgtg 300  
ttttcctttc cattcttttg tttaaccttt cctgaatcta acttaactga gcagagataa 360  
atccctgctt aagtangcac cttgttgtac cactctgtct g 401

<210> 7989  
<211> 357  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-F3

<400> 7989

ggtcgacggg atgcgacaac gggcatctcc agatcgatgg aggacgggag cctgagcaag 60  
cgcgagaacc aacgggtaccg atgatgatgg gaatggcaca acgacgacga tgctgccgaa 120  
ccgcccgggac atgatctgag tctgtgcgga tcggactgcc ccttgctaga taatgtacgt 180  
acgtacgggt accattaacc aagcatgtcg tgattgcatt attttttggc ccctgattgg 240  
atctcatagt acttatgata tacttataac caactcaacc cccctcctcc ttgctcttga 300  
ttgtattata tgtgcgagca tcgttctatg acagttcttt gatatactca cttgttg 357

<210> 7990  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-036-Q1-E1-F4

<400> 7990

gtcgatgggc cacaccacat tgtatcatat gctctttcac acataaacct ctttatatct 60

tcctcaaaac agccaccata cctacctatt atggcatttc catagccatt ccgagatata 120  
 ttgccatgca actttccacc attccattta tcatgacaca ttcattattg tcatattgct 180  
 tagcatgatc atgtagttga catagtattt gtggcaaagc caccgttcat aattctttca 240  
 tacatgtcac tcttgggtcca ttgcatatcc cggtaaccg ccggaggcat tcatatagag 300  
 tcatcttttg ttctagtatc gagttgtaat cattgagttg taaataaata gaagtgtgat 360  
 gattatcatt ttctagagca ttgtcccaag tgaggaataa attaanaaaa agagagaaa 419

<210> 7991  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-F9  
 <400> 7991

atcgtaatac ggggatgagc gatgggtcttt tcctaacaat ctatccctct tggggcatgc 60  
 gtagtactac tttgcttcga gggctaagta gacatttgca ataagtatat gagttctttt 120  
 tgacgaatgt gagtccatgg atatatgcac actcatcctt ccactttgct agcctttatt 180  
 attaccgcbc aactttcgcc ggtatcataa accccttatt tacctttcct caaaacagcc 240  
 accataccta cctattatgg catttccata gccatttcga gatataattgc catgcaactt 300  
 tccactgttc cgtttattat gatacgttcc atcattgtca tattgctctt tgcgatgatca 360  
 tgtagttgac atcgtatttg 380

<210> 7992  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-036-Q1-E1-G1  
 <400> 7992

ctcgaggggc gacgggtgtg tggaaatcga gacttataaa gctagtgtt tgggtttggg 60  
 atgcatgata gcttggagag agtggtgtat ttatagcctg gtgatacgga tgcgatgatg 120  
 gatgggatcg agctgtttga cgtacgtagt agcttacgta tgtgtgtatg atcagacgtg 180  
 gccatgtgtg attcgattgc tttcaaaact gctaggttgt cctctcgatg tatcatttgt 240



tttagagaga taagacaaga ttttaagcatg atatggttta tcaattctgg agatatggca 300  
acaagttgag caacaccctt gcatgttcat gcatgttacg caacactgca ataccttgtc 360  
atgccacaca atatgggcgc gcatagacac cggaagctaa gccgatat 408

<210> 7993  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-G3  
  
<400> 7993

gggtcgacgg ggaacgcggt cgttcgatgc tgagacgccg cggcggcggg agtcggcacg 60  
cagcaacgag gcggtcgagg aggcgcggat caagctgctg gagctgcggc aggtgaacaa 120  
ggtgaaggcg ctctcgggcg ctttcgagac cgtcatggac gacaaccaa gccccgccac 180  
cgccccgaag cgcgggtca acctccacgc ctgaactacg agtacattcc accagcatga 240  
agctcgatcg cgtgcgcctc ctcttttata cgggtactc tttaatcacc catcaacca 300  
atttgctgctc gtcgcacact tatctataat tacggatcg cttatatattt gcaaggagga 360  
agatgatgga agggttatca tgatgtaata ataataatga tcatggaag 409

<210> 7994  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-036-Q1-E1-G5  
  
<400> 7994

gggtcgacgg tgcaccagtg cctgagcatg atcaagggcg tggacaagaa cggcgacggc 60  
ctcatctcct tcgacgagtt caaggtcatg atggcctccg gcttggccgc caagatggcc 120  
tgaccggtcc atcctcttgt tgattcagcg atttcgtcca cgctccctc tctccttct 180  
ctcgcgtgcc gtgcggtgcg gtgcggatta agtgcaatt aagtgtacat aattcaagga 240  
ttaaagggcg gccattagag tagattattt ctttcgtttc ttggtggtgc gagtaataac 300  
tagaaatctc tcgcaataa ctgtgtcgcg aatatcgatc tgagatcaa gagattgacg 360  
acgcttgaag gggatataaa aagcagtggt tgatggtc 398

<210> 7995  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-G9  
  
 <400> 7995

tatactgagt cgtatgattt ttgatgacct ctagattttt gcaacaagtt aaagagttat 60  
 tttggacaat gttgagtcca tggattatac gcacctcaac cttccaccat tgctagccct 120  
 ccttgtgtcg tgcaactttc accggtacca tacaccaac atataccttc ctcaaaacag 180  
 ccaccatacc tacctattaa ggcatttcca tagccattcc gagatatatt gccatgcaac 240  
 tttccaccgt tccgttcata tgacacgcat tactttctgtc aaattgcatt ttgcatgatc 300  
 aggtagtga catcgtaatt gtggcaaggc caccttcata attttcatac atgtcgctct 360  
 tgattcattg catatcccag tacagcgccc gga 393

<210> 7996  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-036-Q1-E1-H3  
  
 <400> 7996

ggtcgatggg tgtcccaaga gtgagtcgta tcaactttgg atgttttata tgcatttata 60  
 tgctatttta tatgattttt ggggactaac ctattaacct agagcccagt gccagtttct 120  
 gttttttcct tgttttagag tatcgagaa aaggaaaatt aagtggagtc tagttgacct 180  
 gaaactccac ggaacttatt tttggaccag aagaagccca cggagtatcg gagatggacc 240  
 agaagagtcc caggctgccc acgatggtgg gggcgtgctc acgccccctg cgcgcgcccc 300  
 ctgcctcgtg gacagcccgg agatccaccg acgtacttct tctctctata tatacccata 360  
 taccctaaaa acttcgagga gcggaata 388

<210> 7997  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-036-Q1-E1-H4

<400> 7997

gtccacgggg caccgtatga tcaatgtgat gatggccaca tgctaacgta atcacatcca 60  
cccgtgctg aaatgcatca gtgagtggca ttgcaaacc ctgacgcact gctcatcacc 120  
catcgagata cagtaccacc angcggttcat ataaacatct aactcgttc tgaatatcga 180  
attggttcac gactgttata cgtaagggtc ctggtaaata tacgtatcat tgtacctatt 240  
tcacttgata cgactgttgt tttttcacac tgccaccatg ccatgtccaa gtgaggcacg 300  
cagcttctca aacttgtgtt gttgtgcctt gtatgctcgg atcttaagta cattactttg 360  
tttcac 366

<210> 7998  
<211> 382  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-H8

<400> 7998

gggtcgacgg gtgatccgaa agatgatcgt gatatacaaga ttaggagggt gaatgttaga 60  
gctaattcttg atatttgtat tagcatgttt gagttttgca tgtagtctag tctagtgtgg 120  
tgttcgtccg acgaaggctt cagggtgagcc cgccaaggaa gttagaatcc aggatgccgt 180  
gtgaagcggc gagcacggcg aaatgccgat ggtgctgcgt tagaagcggc aagacgtatc 240  
aaaggctgga gccgtgatgg actgcatcaa attgggtccg gtgaaccggc cggtcgttct 300  
cttttgttgg actagctgtt catgcgtgag ttcgtttagt cctagccgag agtatcgttg 360  
ctagtagttg atgcatgcat gt 382

<210> 7999  
<211> 215  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-036-Q1-E1-H9

<400> 7999

cgcaccaagc agctagcagc atccgcgccg ccaccgtacg tcccaccgtt gtggccgggg 60  
acctccacct cacatggatt tcgccgtgcc gccgccgtcg ccttgggatcg acaaaggtct 120  
gataccaatt gttggcgccg cctcctcgcg ttgcagcgcc gtccttctt ctacctcaag 180  
ctgccttaga caactctctt gaggtttctc tcaag 215

<210> 8000  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-A6  
<400> 8000

tcgtgggtcg acggggatcg acgaaaatgg gtccaatgag atcacggcag tgcagacggc 60  
gaggtcgggg aggaactaga gtggtcaggg cgtcgagggg gatctccggt gatgatcggt 120  
gaagacgagg ctgttgcgct ggtggggcag gaggggctct tctggttcgg gagcttctgg 180  
ggccggacgg agcagggcga ccccggtgtct tccgaggatc agatgtacgc aagcttgagc 240  
ctgccggtag ttctagagag agtgccgggt taggcaccga tgatgatgca gtttgatgca 300  
agcggcttgc attgcagctt ctaaagtagg tttctacttt tccatccggc caaggatttt 360  
atccagagta gcagctatta catcatttgg tcagtgcact gacccctac tgtacatatg 420

<210> 8001  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-037-Q1-E1-B1  
<400> 8001

gtcgacgggc atatgcactc ctggtacaca cactcagcaa aatgaggtcg tgtgcgatag 60  
gggagcgctc aaatatggaa atacgtataa tagagctaaa atatacaatg atagacgcag 120  
aattgcttcc ggtcgcaagt acatctcaca cagtcagtcc gcgcgaaacg tttccattcg 180  
tatgtacatc acaatcagtc gtcctaagga aaacattttc gttcacaagt acatcataca 240  
cagtttcccc cgttaaatca tttgtgataa cgttgacaat gcacacgata ttaacaattt 300  
taacgtttgc attaataaat ggatcataca ttgtgcgtac aagaaactgt atgggaaagg 360

ttgtccatca gacacaattt ttacttggtgta aacgtttgcc c

401

<210> 8002

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-B2

<400> 8002

gtcgatgcc a ctgcctacag tgagtcgttc taggacacgg caggccagga gaggtatcgg 60

gcaattacaa gtgcgtacta tcgagggggcc gtcggtgcgc ttgtcgtgta cgatgtgaca 120

cgccatgtga cctttgagaa cgtggagagg tggttgaagg agctccggga tcacacagat 180

gcaaacattg tcatcatgct tgtcggcaac aaagctgac tccgccatct tagggctgta 240

tcagtggagg atgccaaggc ctctcgtgag agggaaagca ccttctttat ggaaacatct 300

gcgctggagg ccatgaatgt tgagaacgcc ttactgagg ttctgactca gatctaccgt 360

gtggtcagca agaaggccct cgacatagge gatgaccctg ctgctccacc g 411

<210> 8003

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-B4

<400> 8003

ctcatgggtc gacgggcatc acccatcatg agtcatagca tctgcccaga tgatcgttgc 60

gacggccaca acgaagtgca tctctcaatt ccaggatcaa catgctggac gaatccaccc 120

ttcatgtcaa gttgcaacag tgcacgcaca caccagggag gcttctgtac ttagggacgg 180

tgaatctgca tcaacagtgc tggatggaaa atgcacgccg tccttcttcc ataaaccacg 240

tagggacctt gtattagcct ccccatctaa ccgtcaggaa gccctgacat gccctgctat 300

tgctgtcaac aatgctaccc tatgtagcac acgaactgaa ctttaagtatg tcacatggaa 360

cttcaggtagc caaagccaac agaaccaata ttaatg 396

<210> 8004

<211> 99

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-B5

<400>       8004

attattccct atactcaatc ttattatcac gcgaggagcg cgtcagaaaa gtctcaggaa   60

cgctccgcgc gtgacacttg gcgcgggggg aactataaa                           99

<210>       8005

<211>       417

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-B6

<400>       8005

acggggtggc gaaattgccg tcgccgcagg aaccactgcc cgggcaccat tccttgcct   60

cccatccggg gatcacgtg ccggcatcac gggggctctc atcgccggtg gggattgcgc   120

ggatccagcg agacgacgtc gtttccgtgc atgaggaggc agatcaggat cgggatcgtg   180

accggtcctc gggctttctc catccggcga gatggcgagt cagattagag gatactcgga   240

caccgcggcca tcggcgcgag ggtctgctgt attcttattc accgttgagg tggacgacgg   300

tgactgatct cgagggagac atcctcgccg gccggcacct ggatgatggt gagcaactgg   360

tcgaagatta tcttccgagc cactgcgttg atccatatgt ggtcgctact cactccg   417

<210>       8006

<211>       377

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-C2

<400>       8006

ctcacgggtc gacggggtac cctacaatga gtccaattac cattggaact ctcggtcata   60

gaacatgatc atcggcgaga ggttcgcggt cgaccagcac atggatcact tcattgacca   120

cagcatcata tccatcgtgt ccatccaggc acggatcgtg acgcaatacc ctttcccat   180

gcagatgcac gatagccaat cggagctcta cccttgaggt cctgcactgg cacgatgaaa   240

ccgtgcttcc ggatctcctg ccggcagtca gtcaaacata tcgaacgcag ctagcggtac   300

tccaaaatat actatcggta cgtcgggtcg cagaccaagc agcagtacat cgataacatc 360  
atctggaaca tccatca 377

<210> 8007  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-037-Q1-E1-C3  
  
<400> 8007

gtcgacgggg aacgtgatca tgagtcgga tgaggaaggc gggcggccgg acgccatcat 60  
gacctgacg gtgaagcgcg acaacatctg cagcttcac tcggagacca accccgggca 120  
cgtcgggtcg tgggagacca aggacagcca gctgacgatg gtggcggacg acctgaagcc 180  
gcgggcggtg ctgacgtgcc cggagaagaa gttgatccac caggtggtgt tcgccagcta 240  
cggaacccg ctggggatct gcggcaacta cacggtgggc aaatgccaca cgccaaggc 300  
caaggagatt gtggagaacg cgtgcgtggg gaagaggagc tgcgtgctgg ccgtgtcgca 360  
cgatgtgtac ggcggggacc tcaactgccc gggc 394

<210> 8008  
<211> 344  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-037-Q1-E1-C4  
  
<400> 8008

acgggcatcg ctatagtaaa tcgtaatata tccatacctc gaagattgga tcaccaacca 60  
cacgcttgct attgacatgg gtgctttgtg tcttgctatc catgtgtcaa tttcatcagt 120  
tcggtgctat atcgtatggg tttcacctct agcctatccc aacttgtttg gaaccagatg 180  
ctttgttgtt gtcgtccatt ttgcacacag accaataaat gatttaacac tcgctataac 240  
actccacgtg catcacttat atctttctga gcttgataat ttttgcccca atgattcacg 300  
catatctttc atagcacggt ggtggatttg cttcaaagaa acca 344

<210> 8009  
<211> 416  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-C8

<400>       8009

```
ggctctagaag tcccgggtcg acgggcgggc gccctctcaa gggggtggat gcggccggtc   60
ggcaagacgg gtcctgtgg tacaaggacg caaggcagct cgtcgccggc gagttctcga  120
tggccgtggg ccaggctaata accctgctgg aggaccatag tcacgtggaa tccgggtcgc  180
tgagcacaac ggatcccaag ctgcagggca gtttcgtcgg cgtctatgat ggccatggtg  240
gaccggaaac ggcacgtgc atcaatgacc acatgttcag ccatctgaaa ggatatgcat  300
ctgagcagaa gtgcatgtca gtggaagtaa ttcggaaggc tttccgagcg acctaggatg  360
gattttctct ctctagtcag taatcaatgg tcagtgaggc cgcaattagc ggcggt      416
```

<210>       8010

<211>       373

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-C9

<400>       8010

```
accactccct acagtaagtc gtactacagc gagttcgtgg cgatcatgac gaaagggggc   60
ccgtaggggg ccaacgcca caagccgcgc gacatcgtgc tctccgggac agcagcttgg  120
tccatgaagc cggcgggtcga tccgcaacag accagcatgc gatcaaccgt gcgtgcgagg  180
catctcgcta cgaccactat tacgagctca tgtacacttt gcacaggtca ggtcgagtag  240
cacatctaca tatatctacc gtgggattgg gactcgacaa tgttggtacg ctgtcgggca  300
cctatcttct tcgctgggtc tgctggttcc cttgactgcg acgggaatta ctttagtatg  360
tactgtatcc atc                                     373
```

<210>       8011

<211>       371

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-D1

<400>       8011



gggtcacccg agaatgagtc ggatgactgc ctgacgctgg ggtggcacac gcgcccgtg 60  
 atcgccacct ccgcatggcg cctggccgcg ccgtgaccgc gagttttgaa cgctgtaagt 120  
 acacatcgtg agcatggagg acgacacaac cccggcggcc gccccggctc tccggcgcac 180  
 gcacgcacgc acgctcttga agaagaagaa gaagctaaat gtcatgtcag tgaacgctga 240  
 attgcagcgg ccggccacga tcgaccgtcc ggcgtgaaga gacggacgac gacgaattcc 300  
 gagccgacca tcccaccggc atgtagtaat gtaatccctt cttcgteccc agttccccaa 360  
 cgctccatg a 371

<210> 8012  
 <211> 101  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-D10  
 <400> 8012

tcgtaggtcg atgggattcc ctaaagtgag tcattcttagc ctcgtcatta cggtgatgca 60  
 atatattgac aaggggtcgc atcttttgtg cttagttttt a 101

<210> 8013  
 <211> 103  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-D4  
 <400> 8013

gacgggcagt atatgtgcct agttgggctt taggggaaag agagaggaga ggctgcgcgc 60  
 ccccaaaagg cctactccga attcgactat ggggactcag ccg 103

<210> 8014  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-D5  
 <400> 8014

gttcactcgt ctgatttttc aaaactgttg gcacattatt gcgaaagact tcatgctact 60

gattcaagct ctccacgaaa gccggtttta ctcgtttggg gcacttagct cttccataat 120  
 taccttgctt cccaagaatg aggactccaa tgcaccttgg agacttcagg ccgatcaact 180  
 tgatacatgg aactgcgaaa atctttgtca aggctttggc tactacgctt cactccctac 240  
 tgccttcctt aatatcccaa gcacaaagca cttttgtctg caaacggagt atgcatgaga 300  
 attttaaatt cgtgctgaac actgcaagga cccttcaca 339

<210> 8015  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-D7

<400> 8015

aactgattcg taatagctca tgagacaacc aaccttgaga cttggtgtct tgatatactg 60  
 gatagcattg catgcattgc ttgtgagttt tatttgaagg ttatatatta agctgtagtg 120  
 atggatctcc ttggtgagcc acctactgta cagtgccatg tctatgacaa gctatgcaac 180  
 acaagcaatc tagtcaaaat gctgtcgatt ctttttgaag tttgttactg aatgaatacc 240  
 tgaaccaaac ggtcatctgc gtatcatttt tgttgtgaat cttccccttc tgctggaatt 300  
 ggtcctgctt cagctgggtc caaccgaagg gaactgcacc aacagtaccg acgaaagaga 360  
 actgaagaaa gcagcagcag cagcaaagat tcctgtaca tactct 406

<210> 8016  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-E10

<400> 8016

accctaaatt gaatcgatat agagaggagg cccggttgct tgagcaagtg atggtgcat 60  
 ggtgttggtt ttcattggagt tgctcgcgac gaaactgggc atcgggaaat catgtaccgt 120  
 cttgtctgga ttttccttcg ccagttgat gataactgga aggaagttag tagcaaaatc 180  
 atttctgcag gcagttacgg ctgcattgac tgctgtctcg agcaactcag atttgtccgc 240  
 ggctgttttt tcgcagcatc agcggcgttt t 271

<210> 8017  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-E2

<400> 8017

ggtcgacggg acggacccac atggcctgtg gatgatgcaa cccgaggggc gccccagta 60  
 aagtaagcta aagatgtaaa aaggataca tgccgcgggg acaggccac ggggcctggg 120  
 aataatgcag ctcggggggc gctcccagct aaatggactt ggaaaatgtc atctggtttt 180  
 gttgttgaag gagcgttggt gtagctaaag gcgcgcgcta aagaaaccgc tcctcatgag 240  
 ccgcaaaac ccaaagccct cgggaggctc tgggggctcg ggtggctccc tgaggaccat 300  
 ctctatctcc gccaggacca catgatgcc ggctcctctg gtttcagga tgctccgtag 360  
 gctgcgtgg aaagcggctg ccatgctcgg caggccaaat ggcatgcgaa cat 413

<210> 8018  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-E9

<400> 8018

cctgggtcga cggggatgat tcaacggatt aagacgacga cactgacagc tgctcgacgc 60  
 ctctgcccc gccgcccgcg cccggtatgg agtgggagta cacggacca atcactatgc 120  
 gcccttgga ttttcttcca tcttcgttgg ctgatcggga cgataaagaa gtggcctcac 180  
 aagtcagcat ggatgacgat tgggtggaaa cgaacataga atttgatgga caggatgaaa 240  
 gcgtctctgg caatgctgat ggcatactta ggcgtgtgga attgcatcca gcaaagagta 300  
 gggttatggg tgatgaaaac tcatcaatga tgagcagctg ggtaacaaag gactcgaact 360  
 cttcggatgat ggcctgggag actgacaagt cactggtaga aatagccaag gagattgatg 420  
 agtacttctt gaaagcagcc gcaa 444

<210> 8019  
 <211> 93  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-F2

<400>       8019

gacgggccta ggataaggaa aggtggtcag cccaagcaag tgatcacgaa ggggcatcat   60

tcaacgagac cgacagccag gagatccacg tgg                                   93

<210>       8020

<211>       446

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-F4

<400>       8020

gtccatgggc caccggaaga tgagtcgtat gaggacgacc gcgctgatta caggaaatct   60

gaaccacta cctacatcaa tgctcccttg gtaggggttc ttgcctactt cgttggcaac   120

ccaaaccag gccatatcag aactgagca taagcacttt gccatgtaga tagagaagag   180

tgacagaagc tataaatagg tacacaggaa gcaaataggt ttgtgattgg atggcactac   240

atgttcatag gagtggattg cagagcatgt gttctaccaa taatgagagc ttatctttca   300

tgatttttct tttgtttggg tttgcaactga attttgtttt gtgtgaaggt gtgcacagtg   360

caatttaact gcactgggtg agtcatgagt gaagaaagct tgcattttgc acaaataatt   420

ggtatggaag gtactcctgt ttcaag                                       446

<210>       8021

<211>       401

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-037-Q1-E1-F5

<400>       8021

gggacacca aaactgagtc gtataaacga cagtaaacgc tggattcagc ggatccaagt   60

ccagtcagcg gaagaagccg ttcaaaagaa acaatcaggg accgtccagt ctggaccgta   120

tactggagcg ctctgtcaca cccaatatgc gatactatcc taaagagact cgaaggtccc   180

accaaggata gaaccgcata ttgaaacgct tttgcaaggt ggatatcatt acatcaacat   240

tacataatag atggagatac atacaagagg catcgaatgc catacgaata caacatcatc 300  
 atacataaga acatcatccg actacggatg aaacacaaac agaaactcaa atgacatcca 360  
 ccctgctagc ccagctgcc aacctggaac ctattccccg a 401

<210> 8022  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-037-Q1-E1-F7  
 <400> 8022

ctcgcggggtc gacctcagcg gacaaagtgc atcgcatgat ggcgggagatc gacaccgatg 60  
 gtgacgggctt catcgacttc agcgagttca tctccttctg caacgccaac ccgggggctca 120  
 tgaaggacgt cgccaaggtc ttctgaatca gttcatttca cctcagccgt ccgatccagg 180  
 agccgatcca tctacgtacg gtttcgtata tcaatttcat gcaactacct actccgggtcc 240  
 cgatccagcc tcagcttcac ctgaggcccg ccctaatttt gtttgatcaa tttttttgct 300  
 actagtagta actagtgatg atcactgttg caccatttat ttattttata tcgtcacaac 360  
 tttccagtgt ttcttttctt tctctacctt tntgtcgatc gtcgggtcca gtcgatcga 420  
 acga 424

<210> 8023  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-037-Q1-E1-F9  
 <400> 8023

cctacatgcc atcgtaataa ggcaagcccc ccccccttg atcaccagat atcgcttact 60  
 ctctctata ctgcttgcac tagagtagtg tagcatgtta ctgcttttcg atatcctatt 120  
 ctgatgcata gcctatcctt gctactactg ttgatacctt tacctgcaat cctacatgct 180  
 tagtatagga tgctagattt ccatcagtg cctacattc ttgtccgtct gctgtgttat 240  
 actatcgggc cgtgatcacc tgggcggtga tcacgggcat atacttatat actatataca 300  
 tgacacatgt gatgactaaa gtcgggtcgg ctcgtaggag taccgcaag tggatctttg 360

tggcggagcg acagggcagg ttgagaccgc ctacgtaaga ggtgggcctg gccc 414

<210> 8024  
<211> 255  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-037-Q1-E1-G1  
  
<400> 8024

aagcacaata gttgtttctt acccgtctgc ggtgccccct ccacgtttac tccctccggtc 60  
atattgtcgt agtgcttagg cgaagccctg tgcagatcac atcagcaaca ccaagccgctc 120  
gtgctaacgg aactcatcga ctccctcgta cctctactgg atcaagagtt caagggacgt 180  
catcgagctg aacgtgtgca gaactcggag gtgccatacg ttcggtactt gatcggttga 240  
ttcgacaaga cgttc 255

<210> 8025  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-037-Q1-E1-G2  
  
<400> 8025

gtcgatgggg aaccctaggt tgcgtcgtat gaggcgggga ggggagaaga ggagcgggga 60  
tggcgcaggc ggtggaggag tggtagccgc agatgcccat catcacgcgc tccctacctca 120  
ccgccgccgt cctcaccacc gtcggctgca cccctcgagat catctcgccc taccacctct 180  
acctcaaccc caagctgggtg gtgcagcact acgagatctg gcgcctcgtc accaacttcc 240  
tctacttccg caagatggat ttggattttc tgttccacat gttttttctt gcgcgctact 300  
gcaaacttct cgaggagaac tcattcaggg gaagaacggc tgactttttc tacatgctct 360  
tgtttggtgc tactgtcctg actagcatcg ttctgattgg tgggacaata ccttacat 418

<210> 8026  
<211> 387  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-037-Q1-E1-H6

<400> 8026

accccaaadc gagtcttatg atgatggact gtctatggat ggatcatgga taggtagatc 60  
ttgatccgtt cttttgccta ggtcaggggc cactggaaaag ttgaaaagcg cttgaaagtt 120  
tatgctgcct gttcaaata ga tcttcttatt tcaggggaaa tgatctttac aaccactca 180  
agcatccagg acgcagtcgc cataataaag cagtttgatc gtgtatcgat cacgtagacg 240  
gtcagcaccg cttttcatta taatacagaa aaagtaagta gtaaattcag ttattattat 300  
gctaattggac atagtaacaa ttttgtttct gacgtttttc caaccgtctt gacaacatct 360  
agcttcatgt ttccagcttc agtcaaa 387

<210> 8027

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-037-Q1-E1-H7

<400> 8027

gtcgaatgggg atcctgatag tgaatcttat tataacgaaa agagatgcag ctgcatatgg 60  
ttttcgttgg ttgcttcact cgagcataaa cgggactcac ctctaccaca gataccttca 120  
cactatattgc gactaagaga tgcaaatata cctgcttctt ctatccaaaa gtacctcggtg 180  
catatactca gtctcccaag tgagtccgag gtggaaataa attgctgcgg gcagccagtg 240  
aaccttacac aacctctgcg caatttagta gagttgtggc tgagggggcg atcagcacag 300  
gcaacaccgg ccattgtagg ctcccccgcg gaagagtttg tgatggtgct aaattatgga 360  
cggccaaagc ccatggaacc tttgagtgea cagtaatgat tcaaccatt tccttttgaa 420  
aggtccgggc ttt 433

<210> 8028

<211> 357

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-038-Q1-E1-A3

<400> 8028

accgggctag aattgccta tcgatcgcg gccgaaggg atccggattc gatccgaatc 60  
atcacacgta tccttggccg gctgggggac aagactccat gtcttggcag tcgcagtagc 120  
caccgggacg ctcggtgact gttccggccg tcatttccgg cggcggtccg ggaaacatca 180  
acttgccggg tggcgggccac ttgcaccggg agcgcccgt aagctgagat tattgtctcc 240  
agctttgagg gttcctagag ctgcttcgcc tgcagctgtt gagaatggga gctctagcan 300  
cagtaataca gtccctacac caaaagttat aatagatcaa gactcagatc cggatgc 357

<210> 8029  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-A5  
<400> 8029

ttcgatccga atcatcacac gcatcattgg caggctccat atccgcccac tatgtcttaa 60  
cacgggcaag agctagccga gcgccctctg tgcacgctga cctcttcaca gcttctaate 120  
gaggcaccac gtcaaggagc tgctgcacca aattaaata acttgtcggc ttcgatccgc 180  
ccaggcctaa gcaatccatg acatatgtca tggcgagtcc ggacagtcta ttcagctcgg 240  
cccactaggg taggcgatcg tccactgcaa gtggacgccc tggattggta aactgcgacc 300  
agaagagttt ctccacttca tgattgtcct tatcttgaaa gtacctggtc gcatcggaac 360  
cactagcctc caaa 374

<210> 8030  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-A7  
<400> 8030

cattcgcggg ccgacggggtc aatgcaagct acgaggagcc accttcaccc catcacttca 60  
acaggcaaga agttgttgaa gactcttcag gatcaaccca gaatcattcc atcaaacaac 120  
tacaagagac gtagcaacac ctaaggaaaa ctgagaagac tgcacggggc acagggcacg 180  
actactgagt ccgagaaccc ctagggtagg atgagtcgcy taccctctat gcgcagatga 240



gtctgtatga tgggttcaaata agaatcgtga ttgtgtgttg cttgttttta ttgtttgtgt 300  
 ttttagatag gccgcaactt ttgccctatg caacaagtac gcaactatat caccttcctt 360  
 accttgtttc ttttgtttgg ccctttcggc acttgtttgt ttgcacttgc actataaaac 420  
 cccctt 426

<210> 8031  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-A9  
 <400> 8031

gggtcgacag gggcggatat gaaaaccatc gcactatgta ataagaagga ataataaaag 60  
 taacaaaatt agataagtat ctatctaaag taagaatttt tttctttcag aaagaagata 120  
 agaacaagag gctcaccacg gtggtgctgg cgacgagatc gacgcgggcg atcgacggcg 180  
 gtgaagacgg ggacgggaca tgacggaccg ctaaacctag acaaactctcg gggaaaatgg 240  
 agctcggagg tcgagtttcg agaggagaag gattaactaa ggtggctcag acatttcac 300  
 gaacacctca tgttcatang aggtgagcta gagcacccaa atgcnccccc cctcgcgcgg 360  
 ctagaaaaaa acagagcagc tcggagagac tgcggagccc gaggtgaagg tgctgaacct 420  
 gaccatcctg t 431

<210> 8032  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-038-Q1-E1-B1  
 <400> 8032

tcgcgaggcc gaagattgga tgcaccaacg ccgcctcacc gtaatacctc atggagcgcg 60  
 tgtggcgaca caaccagtac aagtggatgg agacgcgggg cgtggacgat gacgggcttg 120  
 tgagctgcct ccccaaggac atccggcgag atgtcaagcg ccacctctgc ctccgcctcg 180  
 tccgccgcgt gccgctcttc gccaatatgg acgatcgct cctatacgcc atctgcgatc 240

ggctcaagcc cagcctctgc acggagtcca cctacgtggt gcggaaggg gaccccgctcg 300  
acgagatggt cttcatcatc agaggccgcc tcgagagctc caccatcgac gggggccgcg 360  
tanggttctt caacaaggag ctcttc 386

<210> 8033  
<211> 392  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-B12  
<400> 8033

tcgcgggtcg acggggctcc gcacggtgga acagagagg agccagagaa gggggggaga 60  
aggcacgggg agagtgcgag gcctgggagg gtgctgga tcgcggacgg ggtccagggc 120  
gacgagagga agcaggagg ggccagggga agcaggagg ggccgaggcc tctcgggcgc 180  
gcgccacgcc tcggtccttc tggcgaggag gaagacgaca gggggagtgg agatgggctg 240  
ggcgtgctg ggccaggtaa gtgggcgcca ggtaacttcc ttctctctct ctcttttatt 300  
tcttttctat ttctgttatt tttttttgat ttgatttaaa ataccaaatt atttaataaa 360  
atcctggaaa caattatggg tgctttctga at 392

<210> 8034  
<211> 209  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-B3  
<400> 8034

gcttgtagct atgaaattgt aattcttgat gtgaatgat gcagagagga gaatgcaaat 60  
ttggctctaa tacgtcaaaa aaaaaaaaaa aaaaaaaaaa agcaaaaaga aaaacaaaaa 120  
gaaaaaaaaa aaaagaaagc tcaaaaggaa ccacacataa aatacacaaa cataaaacaa 180  
aataaatcca tctagacagt catcaaaaa 209

<210> 8035  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-038-Q1-E1-B5

<400> 8035

cattccccggg ccgacgggta ctaaagtcta aatcattgtt aattaaaatt ggctttgata 60  
taccttggga tccgggtgga ttcattactt gagcactata tgcctagctt aatggcttta 120  
aagaaagcgc tgccagcgag acaacccgga acttttagag agtcatttat ttctgttgag 180  
tgctttcata tagtttaaaa acaacaaaaa taaagagggg aaccctaaac tttttctaaa 240  
agaaaagtga aagtgagaga gacgagcatt gtgaaagtgg gggacgtcct tgaactttgt 300  
tcatgcccac gggaactttg tgaatcttaa ttacagaaac ttttcaataa aaataattat 360  
ccccttgtag aattccattg tattataaaa ataatgtgcc aagggttgcc tttaggatgt 420  
ntacatttcc ttgatgggtt gt 442

<210> 8036

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-D4

<400> 8036

ccttccccaa aaatgattca atccttgga aaaaaattct tccctccgga tcggaggcaa 60  
aaggtaaacc caaaatttcc cttagggtac cctatgaaaa cgcatttttc taacttgggt 120  
tcaagctttt caggttgagg tttcttgaca taagcatcgc atccccaaac tttcagaaac 180  
gacagcttag gtttctttcc aaactataat tcatacgggtg tcgtctcaac ggatttcgac 240  
ggagccctat ttaaagtga tgtggcagtc tctaaagcat aacccccaaa tgatagcagt 300  
acatctgtaa gagacatcat agatcgcacc atatccaata cagtgcgatt acgacgttcg 360  
gacacaccat ttcgctgagg tgttccaggc ggcgtgagtt gtgaaac 407

<210> 8037

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-E3

<400> 8037

taccgggcaa gaattccgga tcgacgggct tctttgagca atttgacaca aagaaaaaat 60  
gtcacggaga ttgttgcctg gacaacttct cgggcaagga atgcaacgca aagagccaaa 120  
tcggtggggt gtttgacgct cttcgtgtca ctgatgacct gttgatgagg agggcatatt 180  
ttaggaagca gcagcttgac aacaaaacaa catcacctaa ctctaactga agaggacagc 240  
cgggtgtgatt tgctcttaca ttgatatcgc atgcgtatga ataatgggcc aatggaattg 300  
ggagcggagt aagaagetca tgttgccctt atgcatgtaa taatcatgcc tgccctgcatg 360  
gcccgcctagc tgttgggtcca atgcctggct gcctgcctga actggcgctca atttccagtt 420  
tgttttttgta atatataata actc 444

<210> 8038  
<211> 184  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-E4  
<400> 8038

gaacgtccta aaatgttga accggagttt ggggaatatc cactcaactg gaagccggcc 60  
ccttaataacc attgaatatc cgggtttggc caatgcactt tggtaatggc attgccccaac 120  
tgaaaaggca ttgcaatgat gtgatattat gatatgcttg aagcacgcct agtgactttg 180  
atgt 184

<210> 8039  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-038-Q1-E1-E6  
<400> 8039

tcgacggggc cgtgaagggc aaggccgggg agctgaaggc gtggctggag gtgctccgcg 60  
ccggcacgga cgggctggcg tgccagctgg acgacttcct ggacgacatt gtggagggcc 120  
gcaaggagct ctccgacctc tgcagccact gaccgtaccg atcgaccgct cgacccgatc 180  
gatgaaacga cgatggtggt tcctgtcgcc tgcttgccctg gcggcaacgc gtggtggtgg 240  
tgtacaagta aagcaatgct gtcggaccc ataagtggcg gcagtagcgt gtcgtaggcy 300

tcttttgcag tggcagtgcc ggtctgggat cggagagtgg agtggagtgg agtgtcgag 360  
cgttttggtc aggtcatcat gttgttgct 389

<210> 8040  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-038-Q1-E1-G1  
  
<400> 8040

tcccagagtcg acggggagca caagaatgac tgctagcaca aggagggcat gatggagaag 60  
atcaaggaca agatcagcgg cgacggccac ggcgacggca agaaggacgg cgaccacaag 120  
gagaagaagg acaagaagaa gaagaaggac aagaagcacg gcgagggcca caaggacgac 180  
gacggccacg gcagcagcag cagcgacagc gacagcgact gagccagctc cggtccgcgc 240  
tccggcagcg tgcagtgtan gcgagatcga tgaataacac ttgggagaag tgtgacagac 300  
atatatgttg cacggtttgg agcgtgtggt agcatatgta tgtaatgcgt gacatgcctc 360  
atggatcttg tgatgtataa taattagccg gccgcactgc actgaacggt gcttgaata 420  
ataacgttaa tcatgttggt attga 445

<210> 8041  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-G2  
  
<400> 8041

gacgggtgac cgctacgatg aagacgacag aaatccaacg gttacggcgg caaaaaaca 60  
acacccccaa ccaccctttc tacagggttg gaggcacga caaatcatc gccaggcaa 120  
agaagatccc cagcaagaac gcttgatgac gaggtgtggc caccgccctg tacaagttaa 180  
tttttttggg atttcagctg tccgccgaa acttgctcac aagcaggagt gtgccagctc 240  
ctgctgaggg atccttgttt ttgttcgttt ttactccaat ttaccgtaa taagcaactg 300  
cagtgcatt ggtttagtct gcacaacagc aaactactc ttggcttgga aaacttgt 360

gccctttgta atgaaaaacc ggacgcactg c

391

<210> 8042  
<211> 177  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-G4  
  
<400> 8042

ggccaagggc cggcgccaac cgggcccggc caatttccgg caaacctta aaaaaaatg 60  
ccgcaaataa aaatccaaaa aaaaaaatat aaaaaaaca aaaaaaacc ggcggcccaa 120  
aagatcaaac taacttccct taagcaatta aacctcaat gtacaaaatc aataacg 177

<210> 8043  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-G8  
  
<400> 8043

attccccggc cgacgggtcac gtcgacgggg aggagggccg tctcctcgac gaaccggagg 60  
gtcatgtccc ctgagagctt cettgcaagg tagaggaaag gcttctcgaa gttgtagttg 120  
ctcttggcag agatctcgta gtactggagg ttcttcttcc tgtggaaggt caccatcttg 180  
gctttcacct gccggttctt cacgtccacc ttgttgccgc acaggacgat cgggatgttc 240  
tcgcacaccc tgcagatgtc tctgtgccag gtggggacgt tcttgtaagt gagtcgggag 300  
gtgacatcga acatgatgat tgcacactgg ccatggatgt agtatccgtc acggaggcca 360  
ccgaacttct cctgtccggc cgtgtcccag cagtagaacc tgatcttgcc gtggctcgtc 420  
t 421

<210> 8044  
<211> 341  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-038-Q1-E1-H5  
  
<400> 8044

atcccaagag tgagtcgtat tatatcggaa tcatacaagc atacaataag caatcaggca 60  
 gaatcacgag tgaaactcaa ataagagatc taaccagaaa gttcagctta agaactctgg 120  
 ttcgcaaaat gaatcaaatc aaacgaagca tgaatactca agcggtgaga gaagcaagct 180  
 tcgtttatta atctggacta aggtcaaatt ttacagtagc aaaaacgtgg ttaagttgga 240  
 taaacggaaa gagggtttcg agacgaagct ctaggcgctt gaatcgcttg attccgataa 300  
 atgagcgaaa agttatacta gaacgaagat cggatcagaa a 341

<210> 8045  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-038-Q1-E1-H6

<400> 8045

ggccgacggg tatgtgtatt tatcttttaa ttagtgtttg tgcaaagtag aacctatagg 60  
 ataacctacg atgatatgtt atttgattct gctgaaaaac agaaactttg cacgcacgaa 120  
 tataattttg ttaaatacaca ggaatgtgct tttgcgatga ttctttttga tgctgttcca 180  
 taaaaaaatt gtcccgact tcctattttg gtaggatgtt tagagttcca gaagtttgcg 240  
 ttagttacag attgctacag actgttctgt ttttgacaga ttctgttttt cgtgtgttgt 300  
 ttgcttattt caatgcatct atggctagta aattagttta taaaccataa ataagttgga 360  
 atacagtagg ttttaacacca atataaataa agaatgagtt cattgcagt 409

<210> 8046  
 <211> 70  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-A10

<400> 8046

accgggcgta tattccggat cacggggtat gactaatact atcgatatag gttattctac 60  
 atgattactc 70

<210> 8047  
 <211> 423  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-039-Q1-E1-A11

<400>      8047

```
cgcggggtcga aagaggcgga taactgcggc atctgcagag ttggaggcaa ggacaacttc   60
tttctactgcc gcaagtgcgg atcgtgctac tcggtgaccc tccgggataa gcatgtctgc  120
atcgaggact cgatgaagaa caactgcccg atctgctacg agtacctgtt cgactccctg  180
agggaggcgt cgggtgctgcg atgcgggccac accatgcact tgcagtgtt ccacgagatg  240
ctcaagcacg acaagttcac ttgccccatg tgctccgtgt ccatctttga catggagaaa  300
ttcctgaggg ccttagatgc cgagattgag gcgaagttct tacacatggg aaagggatgg  360
atcgtgtgca accactgctg ggacacgacc cgggtgtatc cgggcatgac gggacagaga  420
aag                                                     423
```

<210>      8048

<211>      114

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-039-Q1-E1-A12

<400>      8048

```
cgggggcacg tgaatcgtcg agcgagaaca tggatcggct ggtcaggttc ttgcgtgccg   60
ggtgttatgg tgctacctga atgagttata ccggtgttgt ttggtaccat gcat         114
```

<210>      8049

<211>      396

<212>      DNA

<213>      *Triticum aestivum*

<223>      unsure at all n locations

<223>      Clone ID: LIB104-039-Q1-E1-A4

<400>      8049

```
cggggacatg agacaacata aagtgcagcg ccagaagagg cgcaggcgga ggaggattcg   60
gggggtttca gcttgttctg aaactgcaac cttggttatc agccgactta caccgggatg  120
gtagcaggcc agcaagcagc acttgtagtg aacttgtttt tgcattgtcta gatggggaag  180
tgattcttct ctgtgattct tgtatggcca ttgtgtataa tagaaacgtt tgcattgcaac  240
```



cacggctctg gctgcatggg ctaaagagct aaacatgaac agagaacaca tctggagtat 300  
cctgtancat acttggggaa cacacgtctc tacagtgaat ttgctgtata cgtgtctgtc 360  
agttcgtnta taattttaatt taacatactt gggcag 396

<210> 8050  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-A5  
<400> 8050

tggccctaaa ccccatcatt gacggatttc acctcactcg agtccttatg aacggcggca 60  
gcagcctgaa cctgctctat caggatacag tgcgaaaaat gggatatgat ccctcgagga 120  
tcaaaccag caaaaccacc tttaaaggcg tcatcccagg tgtagaggcc cattgcacag 180  
gctcaatcac actggaagtg gtctttgtat caccggataa cttccgaagc gaagagttaa 240  
tcttcgacat cgtcccattt cgaagtgggt atcatgcact gtcgggacgg acaacatttg 300  
caaaattcaa tgcagtgccg cattacgcgt acctcaagct caagatgccca ggacctcgcg 360  
gggtcataac agtaaatgga aacatagaat gtcgctctg tacagaagag cacactg 417

<210> 8051  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-039-Q1-E1-A7  
<400> 8051

gggtcgacgg gaacttecta cattcatgga aggggtgatg aactctcca aaagacaact 60  
ccttttggtt cggcgccggg cttgggatat tgccatattt cctttcaact ttcgaaaatc 120  
aacttgtcct catctttggg gtatgatccc gtctgaatgc tttcctctc ttttgtgat 180  
tggcctttaa ggtgagggtc tcaatgaaca acggctctc cttaatgtct acgccatctt 240  
cttcactctc acaataaatg tcttcatgcc atggctcgcc ttggccgtca gtcgcttctt 300  
gattgttggt gctgccaatg tgctcgacac catgatcttg gctgtgaccg tcttgacttt 360  
gggtctcgtc gcgatcgaag gcttggccat ggccctcggg gtggaaggct ttggcactac 420

cctcatagat gatgttctcc atgaaatcgt t

451

<210> 8052  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-039-Q1-E1-A9  
  
<400> 8052

gggtccacgg gattactgta gagcaattga tagaaaagcg aataattatg agaatatcta 60  
ggcatgttca tgtatatagg tatcacgtgt ttacagttg gacaaactca aggccggcat 120  
ccaacaacta ttaagtccaa cacaattcga cggtatcca gcatgcatct agagtattaa 180  
gttcataaga acagagtaac acattaggta agatgacatg atgtagaggg ataaactcaa 240  
gcaatatgat ataaacccca tctttttatc ctcaatggca acaatacaat acgtgtcggt 300  
tccctttctg tctactgggat caagcaccgc aagattgaac ccaaagctaa gctcttctcc 360  
tattgcaaga aagatcaatc tagtaggcca aaccagacta ataattcgaa gagacttgca 420  
aagataacca atcatg 436

<210> 8053  
<211> 262  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-039-Q1-E1-B1  
  
<400> 8053

taattccaag cctggtggaa cagaaaaaag gccaacctta gcccaaattg gaaaggcccc 60  
ttaacaacca acaaattcct aacgggaatt gaaacggcaa gccatgcaac cgaacaacga 120  
accaagccaa aaccaaggga caaaagccgt ctttgaagaa tttaagccta accccgggac 180  
caagggtcct ccccttctc cgttcaactt tcaaaattcc ttccccaacc ttggtttccc 240  
tcctttttcc ccaacttttt tc 262

<210> 8054  
<211> 337  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B10

<400> 8054

gggtgattcc caaagcatgt acatatggtg aaccattatg tgacgaagtc agagcatgat 60  
ttattttattg attgtcttcc ttatgagtgg cggtcgggga cgagcgatgg tattttgcta 120  
caaatctacc cccctaggag catgcgtgta gtactttggt tcgataacta atatattttt 180  
gtaataagta tgtgagttct ttatgaataa tgttgagtcc atggattata cgcactctca 240  
cccttccacc attgcaagcc tctctagtag cacacaactt tcgtcggtag cataaaccga 300  
ccatttgccct tcttcaaaac agccaccata cctacct 337

<210> 8055

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B11

<400> 8055

cgggatgacg ttacgagatt ctcaggaaat gaactacgat agcaagctcc aaaacatgag 60  
ctgggttctgc tacaacatg tgaaacacgt tgtcccagac aagcatggcc atgtagtagt 120  
catataatta aacactaccg agttcagggtg gggaaccatc atcgaggata tcgaagtctt 180  
tacgcaagtc catggattag atccaagca tagacttctt ttccttgaac aagtcaatca 240  
gtggcttagt gtgctaggga cacatataga atgaagggtg caagtctcca gactacagaa 300  
tacttcgcac gtgcgcatga ctgatttggg atgattccaa aggaaacaaa acaatctttc 360  
tcaaattcac ggcggcaact ttcaccaa atgcagtgtat aagaggaagt cactcctttc 420  
atcaaacaaa 430

<210> 8056

<211> 226

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-039-Q1-E1-B12

<400> 8056

ttccccgggat cgcacgggcg gcggtgacgt nggcggcgac gggagtggct gnaggctgcg 60  
 ggggttggcg acgtggcggg gcgctgattg ggtcgggagt gaggtggang gcggcggccg 120  
 gacatgttca agcgggggaa aggatgaaac gtccccgcga tgcgganggg gaatttgatc 180  
 tannggtttt gccccgaaaa ctccgngnga aggggaacta atatat 226

<210> 8057  
 <211> 329  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-B2

<400> 8057

cggggccaaa ggaaataga agcanacgtt ggtaccggtg ggtccggatg cgcaatcaac 60  
 ggcgggattt gtgttgcgta cctcacacct catagtcttg gttgttgctt ggatgtggat 120  
 gttttgtggg atgtgtgacc cctgaccgct gatcgccgct gctctgcttg ctaacgacaa 180  
 gttcatgtag ctgacctgtc caacatcact gttggccggc gtacaaaatc cttgcgtctg 240  
 tgtggtgccc ctgggactga cctgcatcag ttaactagtg tacatttgca gaatctctct 300  
 gttttcttgc agaaaaaaaa taannngnt 329

<210> 8058  
 <211> 289  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B3

<400> 8058

gatgtagacc aatccgatac aaaactccta aattaataaa agaaaccgga tttcaacaaa 60  
 cgaacaaaaa atcccaattg agaataaggt gaattccata aaccaagat tacaaaaagg 120  
 tccaagggtg aaagataaaa aacttaaggt tgaaggaata aaaaatcctc ctgggttcga 180  
 ataacaggga aattcattaa ccacaaaaac catcaaaact ataatctgaa acattatcct 240  
 aaataaacia ttttctgaat aatgaataaa ttctaaacca tggggctat 289

<210> 8059  
 <211> 369

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B4

<400> 8059

caacaacggg aaccctttcc aaaaattttc ctaaaaaggc ctgaatgtct ccctctcaac 60  
 tgacaaccct cggcaaattc acctaacaaa agaacctcgg gttgaaaaat acattgttgc 120  
 tgcttcgctg tggaacctta gttcatgtga cctgtgtgaa ataccagga attctgtgta 180  
 ccattccggg ttctctcaaa ggctgaattc aactggatt ggtagaaact actataaaag 240  
 aggtcccgac ggcaatgaca tcaccagaca aatgttcctc acgtcaggat tgaattccga 300  
 cacaacattt ggaaagacga gatggagctg atacatttcg gaaatgttaa gcctacagaa 360  
 gaaaacgac 369

<210> 8060  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B7

<400> 8060

cggtcctagg aatcccgggt cgacgggata ggagaatgcc acagaagtgt ggtatcattt 60  
 aacatagtct ggaggggttg aatagactac cattaacaaa ggggactgct tgtcaacttt 120  
 tagtttcctt gcaattttta gcttttctac agtagtatgt tgcctcccaa aggagttatt 180  
 gggtttcccc caaagaggaa ggatgatgta gaacaacaac aaagtatttc cttcggttag 240  
 agaacaaagg ttatcaatcc tgtagaaagc ttccatgcta acaatataaa cacacctaca 300  
 cacaaacaag atacaaactt gcaccaaca tggcaagagg gttgtcaagc cccttgccctt 360  
 gctaattaca agattaaaag aaaattatag agataaatag tggtaaaata gcacgggaaa 420  
 taaaaagagt aaattgtgta caagaattta ttaat 455

<210> 8061  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-B9

<400> 8061

agctttgggc caccggctgg ctgcatgacc gcatacgtgt cgtcgtctca agcttcttcg 60

tcaaggttct ccagctgccca tggcgctggg ggatgaagta cttctgggac accttgctgg 120

acgccgacct tgagagcgac gcggttgggct ggcagtacat ctccgggtct ctgcctgatg 180

gccgtgagct cgaccgcatt gacaacccgc agtttgaagg ctacaagttc gaccatacag 240

gggagtagct ccggcgatgg ctgccggagc tggcgaggct accaacggaa tggatacacc 300

acccttggga tgcacccgag tctgtgctgc aggctgcagg aattgagcta ggttccaatt 360

accctctccc cattgttgag ctagatgaag ccaaat 396

<210> 8062

<211> 312

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-039-Q1-E1-C1

<400> 8062

taccggccct acattcncgt agtcacgggg agcgaccatg acgagctgta gatggtttta 60

agggaaccaa tttttgtaat ggggttagta gggtgagaga ggagacatgg ataattggta 120

ccgctgctgc ttactttggg tctgcggttg ttggaggtagg ttgagactgc tgttattagt 180

ctgttgctcg agctgtagag aactctttgc tgctgctgtt acttccttct gatgtttttt 240

cgttttgtta ttatatagcc ggatggattc gcacggaat ttaacgcgaa gaaaagatat 300

gcagttttat ct 312

<210> 8063

<211> 409

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-039-Q1-E1-C10

<400> 8063

ttccgggtcc acggggatgc cgaatttgtg tgctgtggct gggcatacgg tgaatggagt 60

ggccgagttg cacagcaaca tcttganaca cgagctgttt gcagattatg tctctatttg 120

gcctaacana ttccagaaca naactaatgg aattacaccc cgcagatggc tccgtttttg 180  
 caaccctgag ctgagtgaag tagtcacaaa atggctaaaa acagatcagt ggacaagcaa 240  
 ccttgatctt ctcaacgggtc ttcggaaatt cgcagatgat gaaaaactac atgctgagtg 300  
 ggcagcagcc aagctggcca gcanaaagcg cttagccaaa catgtgttgg atgtgactgg 360  
 tgttacaatt gattcanata gccttttcga tatacaaatt aaacgcaat 409

<210> 8064  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-C11

<400> 8064

ttccggatcc acggggctgc gatagtgagg agggcgctgt gctaccact caaattggtc 60  
 gccaaaaatg ctggtgtcaa tggcagtgtt gttaccgaga acgttctttc taacgacaac 120  
 ttcaagttcg gctacaacgc cgccactggg cagtacgagg acttgatggc tgctgggtatc 180  
 atcgacccca ctaaggtggt gagatgttgc ctggagcacg ccgcgtcagt ggccaagacc 240  
 ttcttgacgt cggacgtggt ggtggtcgag atcaaggagc ccgaggccgc gcgcctcgcc 300  
 aaccccatgg acaactccgg cttcggatac tgatgagcga cacggccgag tttctctgga 360  
 tgacgtgggt taacttttgg taccatggac caagttttga gagattgatt gatgatgatg 420  
 atgt 424

<210> 8065  
 <211> 70  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-C12

<400> 8065

gaaaaagaaa cngtgcnaan agaacaaaat tggacaacaa aaaaaacaaa aaacgggccc 60  
 cccaaaagga 70

<210> 8066

<211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-C2  
  
 <400> 8066

cgggtctagc caagtttttt aggttttggg aaccttctna aaggttcctg gaaaccggtt 60  
 tttttattat ttttattatt ttogttttat tttctatttt tctctttctt ttttctgcct 120  
 tttttctttc ttcttgcgct ttttcttttt gatttttttt gtgttttcag ctaatgtggt 180  
 cagaattttt cataaaaaact gagattttca gattttttctt cagaaatttc atagaatttt 240  
 agaatttcac aaattgttcg cttattttaa aaaagtgttc atcttttcaa attttgttca 300  
 caaactaaaa aatgttcggt ttaagaaata tgttcccgtt ttcataattt gttcacaaat 360  
 tgctcaggaa tttcataaaa tattcccact tttgaaagtt gttcaaaaca aaattctgaa 420  
 aaatg 425

<210> 8067  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-039-Q1-E1-C3  
  
 <400> 8067

ggtccaaccc gaagccccgg ggcaaaacaa ccggaataac ccccaaaagg tcaaacaaca 60  
 cggggaatcc tgggaaataa ccggaccag aacgaacaca agccggcaaa tccaattttc 120  
 aacaaaccaa tttaaaactt gcaaatttta acaagccggt taaacttgat ttgggcccct 180  
 tggaaaaatt tggtagcccc ggaaccggca atttgaatta acttacaagg tagggccggc 240  
 cggccggtgg tgtcattcaa aaccggcttt ccgcttggtg caccaaattc ttgcagggaa 300  
 agtgtaggtc caaaattttg caaaggaatt ggtgaactgg gttcttttat tagaaaccac 360  
 acttcagcg 369

<210> 8068  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-039-Q1-E1-C4

<400> 8068

actacgaaaa gatgccgggc gtgaaagcgg tggacatggt cgacgccgac gcgctggcgc 60  
 acatcagcgg gatgagctcc tacatgtaca accacacggt ggagtcgtgg atataatctg 120  
 actcagcagc aacacgagcc cgctaattcc atttttcacc aacctatttt acacgtgcag 180  
 atttttaaca gcctgtttta cttgattttg gtcccgtgga ataattttgt agctcctgaa 240  
 gcggcgagtt gaatttactt accatgtagg gtcggccggt ctgttggtgc agtcgacatc 300  
 tgcttttcgc ttgttgagc taattcttgc acgtgaatgt gaagttctac agtttgacaga 360  
 ggagttgtgt acttggattc ttttaattga aaagcacagc ttcagcgaat aca 413

<210> 8069

<211> 352

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-C5

<400> 8069

cccggtcca cggggagttc agaggcgtcg ccatggacat ccaggaggag tgcccgcccg 60  
 acgacccctt gctccggccg tggcagatcc cgtaccctgc caccgccatg cccatcgccg 120  
 ccaccgccac gcacatgctc cagtactgat cgatccggtg atgattgggt caataattga 180  
 ggatcccttg taggagcgga gctgagctgt ggctggcaag aggaagaaga tctaccctac 240  
 ttggctgctg ccttgaggat tattaccaag gcgtagtttg ctgctatatg ttgtgtttat 300  
 tattatgttt cagtaagtgt ccgccgtcgt cgtcctcgtc ctccatgtcc ta 352

<210> 8070

<211> 220

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-C9

<400> 8070

cgggagatcc aactgccgt atgcctcgtc ctcgccagcg aggtcacgat tccgcagtct 60  
 ccgagggcac cactcgggtg cgacaagttc acctcctctt aggcgtgttcg tcggccgttt 120

ctcggatcta gccgtacggg tgcgtttatg gccgtgtaaa cctcgtcgaa tcgtaccga 180  
 tgtcactgta ccgcccgaca tgttacaggt gcctgcctca 220

<210> 8071  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-D1  
 <400> 8071

ccacgggaca cctaccaccc cagctccagt gcctacaagg tcatcatcga ctttggcctc 60  
 caaaaattct tcaaattaaa ttaactaaca acctaacaat aattgtaaaa ggacaaaggg 120  
 gaaaaggagg aaaattaaaa ggaaaaacca aggattttga caaacattca ttaagggggtt 180  
 aacacgtttc ccaaaaataa aaggaggaaa aatcctggac tgaccaacat cagtccaaaa 240  
 attttgtttc agtttaggtc caaatTTTTT gccaatTAAG ggTTTact tttccctaaa 300  
 aaaaaaaaaa aaaaaaagga aaaaaaaaaa aaaccAAAAA aaaaaaaaaa aaaaaaaaaa 360  
 aaaaaaacCG gccccccaaa a 381

<210> 8072  
 <211> 68  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-D10  
 <400> 8072

ttcccgggac cacgggaatg cgacatgatg gaccgatatc cctagacaca tctcgaggaa 60  
 aatggagc 68

<210> 8073  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-D11  
 <400> 8073

gaatggacca tctgatgaag cttctcatgg caatcaaact ttacattgca tantgccact 60  
 gggcgctgcc aagcaagagg agctgtctgc taggaccccc ttggttcttc aaccaatgca 120  
 ttaacggata acctaaagaa gaattcaatt atgagaatac tgccccgctt tttcccactg 180  
 ttgattgatc tgaatcgctg cgaacatagc tctggagatg ttcaacacgc gctgtacaaa 240  
 atcttcaaat catcaatagg ccctatgata gaagtataat ggcacattcc cgtcctgcta 300  
 ggcgcacaat tttgtgacaa cattctgaca tcctgaatga gcccttcctt caggatcctg 360  
 gagttcaagt gcatattact agtccagata tcatgtataa agaggaaaat ac 412

<210> 8074  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-D2  
 <400> 8074

tccacgggga cgaaggcaca actcatccta aaggctcttc aaggcccgta atagagttgc 60  
 cagatattcg aggtgacaca gattgttttg ctggatctgc tggagttggc atgcctcata 120  
 aactcaaaca agtacaaggc gatgattcat ggatgtttga ggaaatttct gtatcaccta 180  
 gatcattatg tttgaatgag gaaggtgaaa gtgtcgtctt tgagcatagg gaatctggat 240  
 cttgtgttga gcacagggaa tctggatctc ctgttgatga ttacttacc catgcaattg 300  
 gttcgtgcga agagagtaaa atttctccat atttccttga tcttgatcca agaacttcag 360  
 ggaagaaatg tcaagaagta gaccattgga atcataaacg acatcatgac tgtcctgccg 420  
 gagactgtaa tgaccagaat gaattt 446

<210> 8075  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-D3  
 <400> 8075

tccacgggga cggttaaggt anggtttcgt ccacaaattc aaggaaagga gcacatatta 60  
 aaaggtaaag gaacctagga aagtcaaaat aagggtgcgt ttttggccac ccaatcgtga 120

tcaaatgatac aaaatgataa aggaggttta ggtgggtttt tgggcaactt tggaaggggtg 180  
 ttgggctgca aactaacga agccttttcg gtcccctcgg taaacctttg agtatcaaac 240  
 gaagtcaaaa tggcacgaaa cttgacaggc ggtctaccgg tagtgaacca aggccgcatg 300  
 gcaagtctcg gtcaaatccg aaaatgttta acaccgcac acgaaaaang aggtagaaag 360  
 ggacaccggg tgacatanga acgccggatt gcaaacgga caacagggaa aatgcttgga 420  
 tgcataaac gaacatg 437

<210> 8076  
 <211> 166  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-D9

<400> 8076  
 accgggccta aattcncgga tcgacggggg tgtgggtgag tagagggatg tcctggccaa 60  
 cgggtgggaat aataagaagc cgtgaagcct ccgccggaac aaaaccgggc acgggaagca 120  
 agaacatgag acacgaccgg cgctgccttg ggccgctgga gcaaga 166

<210> 8077  
 <211> 242  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-E11  
 <400> 8077

tagcttcaga ctgatccag agatacctag gttggctatc gctatgtaga gtggttacat 60  
 gctgagagtg gacattatgt gtcagtctct cgtgatgttc tggaatgaca cttctgtcgt 120  
 gtcacagagt tctgcgtctt atatatcctc caagtgagcc tttagctgat catagttcag 180  
 gtgatgttga tcttgaacga gctagagaca ctggaaggtc gccaaagagta agaagggata 240  
 ga 242

<210> 8078  
 <211> 451  
 <212> DNA



<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-F1

<400> 8080

cgctgcccgg taccgccccg aaattcncga gtccacgggg ggcgggcaac agctgctgct 60  
gctgcagcag cagcagaccc ggaacaacac cgcaaaataa aaaataaagc aaaaataang 120  
agcaaaccac aggaacaac aaaaccaaatt attatatata aaaaaaggct ccgcaattta 180  
cagatagtaa tttgcaatac ttccttcctt gcttccattt ttgtatggcc tctcaaagct 240  
tgcttttggt caagctggaa ttgtatcatt tctcgaaaac ttgtcacctt gaacatgaaa 300  
ctattggttt gcacagaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagcgg ccg 353

<210> 8081  
<211> 348  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-039-Q1-E1-F10

<400> 8081

attcncggga cgacgggggt tacatcactc cctactttat taccaacca aagaccaga 60  
aatgtgaatt ggaagaaccc ttgatcttga ttcattgaca gaaagtttcg aacatgcatg 120  
cagtagttaa agtgtagag atggctctga agaagcaaaa gcctctactg attgttgctg 180  
aagatctaga aagtgaggca ttgggcactc tgattatcaa caagctccgt gcaggcatta 240  
aggtctgtgc tgtaaagct cctggttttg gggaaaacaa gaaagcaaatt ttacaggacc 300  
ttgctaacct tactggcgga gaagtcataa ctgaagagct tgggatga 348

<210> 8082  
<211> 284  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-F12

<400> 8082

cgggacagcg ctagaatacc tgcagcacga gaatttcatt gaatgagcag tcagttagtc 60  
aaggcaatgc cgagtcctaa ttttacaaaa gtccaagaag acaattgtac ttcgtcaaca 120

tgtgccatTT gcctggaaga ctacagtgtt ggtgaaaaga taagggtgct gccttgtcgt 180  
 cacaagttcc atgtcgcttg cgtggacctg tggctcacat catggaggac attctgccct 240  
 gtatacaagc gagatgcaaa tgctggaatg tcaaatttcc ctcc 284

<210> 8083  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-F3  
 <400> 8083

catcattggg taataataat gaaccaaacg gaacaaggtc aagttaaagt gaacaaaggg 60  
 ttccaaaaaa ttggaccgct gtagatagag ggggaagggtg atggaaatgt tggatgaagat 120  
 ggcggagggtg ttggtgaaga tcgtggtgat gatgatggcc cccggtggca ctccggcgcc 180  
 accggaagct agggggagag agccccctt cttcttcttc ttcttcttct tccttgacct 240  
 tctccctaga tgggagaagg gtttccgctc cgggtccatg gtctccacgg ccgtgggagg 300  
 ggcgagaacc cctcctgaga ttgatctgt cactctgtct ctctctgttt ctgcgttctc 360  
 tctattctgc cctt 374

<210> 8084  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-F9  
 <400> 8084

acgggcgtag catagtgtcg gggagccggc gcaacaagcg caagcgctgc caatagtgcc 60  
 gggagcaacg gacttcggcg caatgccgca atgtggaaag accggtgtgg agcacgctct 120  
 cttgggctgc gccaacgtct acgacaactg actcctctaa gccgtggctt atgggggtgtg 180  
 tgttggtata agccacagcg tgtgtggtca ggctcgtcac gcgcgacgga ttcacgcggg 240  
 acgtacggga cgcactgatg cattcggact cgtcggacac gactgatgcg cgcaggacat 300  
 gcgggggtgca acggaaacgt ggcgtgtgtg catgtgtggt gtgcgtgtgt gcgcatgtat 360  
 gtgtgtagcg tagtggccac gct 383

<210> 8085  
 <211> 53  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-G1

<400> 8085

attcncgagt cgacgggaca cggtctgaat acctgcagca cgagaaattc atg 53

<210> 8086  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-039-Q1-E1-G11

<400> 8086

ttccgggatac acgggctgcg gagagctcgg cgccgccggc gctctgccac agttcgtgaa 60  
 cccagtcgcc cgccggaaca atccgtgttc ttggcccat ttaatttcaa aaataaaaat 120  
 tagtaccage agtgatctgt attaggttgt agtagcacta gtaatagaag tagtagtagc 180  
 gtcagtttta gcaggtgtgt attttggatt ggtgacacat tggttttggg gtgccggcga 240  
 taagcggtagg agatggatga acaagcaaga gatccatgtc tagtagtagt agttggtttg 300  
 ttagaagcaa taagtgggtc tctttcggag gcgagagaga tgtttttagct gttttagtagca 360  
 agcgctagag atgataatgt tggagtgaaa tgaggctaata ctcaaa 406

<210> 8087  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-039-Q1-E1-G2

<400> 8087

attcncgagt cgacgccaag aaaggcttct atcaatgtat catcagtatc aatcactaca 60  
 tgacaccaca caacagatat gctgctgtca gcagtcctct ctaaataagac actgcaatta 120  
 tcgtataagt acatcattgc tgctgtcagc agtgctctct aaatagacac tgcaattatc 180



atgtacatca ttgctgctgc aatgaaccat taagaattat ttaaaatcta gcoctaccatc 240  
 tgcgttgtcg tcaacagagg gttgaggcgg agttacaaaa tctgtatgag aaaccgaggg 300  
 attgtccgag tcagcgacat ctttgttata ttcagagctg tcagaagcag ctgagatgac 360  
 gtcacctgat tctgaatgtg ttctgtcnac atatgcttca agtaaggagc tctcggccac 420  
 gtcagcatcg ccgttatgcc g 441

<210> 8088  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-G4  
 <400> 8088

acggggccac cacgggtcca tgagggttta cgatggaagc tcaccatatt cgactccgaa 60  
 gcaaacaagg cctaggaaat caagccactc tggggagcag cgacaacctt tcagtggcaa 120  
 tgggttttga cattgccttt cacgatcatc ccccgatta gtagtgattg agccagcgga 180  
 tgtgctggta gcaacacatc attctgcctt tgggtttgtc agttcggtag ccattatata 240  
 tatgtttttt tctctagcca ttgctattct ttttagtggt gcgccaacg aaagcattgg 300  
 agtggtgcca aatttttgcc atgtgccctc ttgtacagta tatcactgct caatcatttc 360  
 gacttaaaat gaaagcggtg atgggtatag atttgtgttc tagacccatg gaagatgcta 420  
 tgggaacct 429

<210> 8089  
 <211> 175  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-H1  
 <400> 8089

aaaatgccta ttcaagtatc cttttaagct attcaaaaat tcagtaaaaa tttcgattaa 60  
 aaatatgtca tcgatatata atatcaaaaa cgctacagag ctccactca ctttcttgta 120  
 aatacaggct tctccaaaag tccgtataaa accaaaaggc tttgattaca ctatc 175

<210> 8090

<211> 355  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-H12  
 <400> 8090

tccgggacaa gcgtgagacg caacgagata caagactcct ttgggttgag gatcgatact 60  
 atgtctacgt accatgctac tcagagcttc cagcccaaga aacttcagtt cagtgaatgc 120  
 caacttctgt tcaatgtgca tctgtggttg ttctgctgcg atatgctgaa ccaccttgta 180  
 tatcacgcta gccggagtca tccgtgtgac cagtccagga accctgccat ttttactttg 240  
 tcgatgcaga gttacgttcc tgtactaacc taaaactctt caccatgttc ctagttaaat 300  
 accttgttta agtttgctat atacccttta tgtaagattt gatgagctaa aacaa 355

<210> 8091  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-H2  
 <400> 8091

acggggacgt ggtgaggctc aaactgcaag gagcatgcgg ggtgtgcccg agctcgggtga 60  
 tgaccatgag gatgggcatt cagcggcggtt tgatggatga aataccagag attgctgcag 120  
 ttgaagctat cacggacaag gacgctgggc ttaagctgaa cgaagagaat gttgagaagg 180  
 tactcgatga gatcaggcca tacctcaccg gtgcaggagg cggtaatctc aggtttgtcg 240  
 cgatcaacaa attcttcgtg aaagtccaac tcaagggccc tgcagcaggt gtggcgggccg 300  
 tccgagttgc tatagcacag aagctcaaag agaagatccc atccatcgca gctgtccggc 360  
 tactgccgta aacttcaact gcaaaacatt gctgtgaata tctggttatc caggagaatg 420  
 ctatgaatgc gctaactgat 440

<210> 8092  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-039-Q1-E1-H3

<400> 8092

gaagcgtgaa ctgggcaatc caattccaat tccgaaagcc tccccaaaac aatggcccct 60  
 tcggggcccg aaacaaaacc caaccggccc ttccaacttc aacaacggcc ggcaatcaca 120  
 atgggtttttt ggaattggtt gccgggcaag aaggccaacc aggaccatga ggcaggctcg 180  
 tcatcaacct caccagaaac cgcgggccacc tactcaacct cactgatggc attctcaatc 240  
 tcccacctgc agctcggccc cgcttccggt cgtacgttaa ggtggaggta tgccgatggt 300  
 actggcagac ctgcaccccg ttgtcgtggt ctgttgccaa gcccgccccg cgagccgcgt 360  
 gtgcgtgtgc cgagccac 379

<210> 8093

<211> 395

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-039-Q1-E1-H8

<400> 8093

cgggcacgct tcacactccg ggtactctat cgcaatcata caagcataca ataagcaatc 60  
 aagcaaaatc acgagtaaaa ctcaaataag agatctaacc agaaagttca acttaagaac 120  
 tctggttcgc aaaaagaatc aaatcaaacy aagcaagaat actcaagcgg tgagagaaac 180  
 aagcttcggtt tattaatctg gactaaggtc aaattttaca gtagcaaaaa cttgtttaag 240  
 ttggataaac ggaaagaggg ttctgagacy aaactctagg cgcttgaatc gcctgattcc 300  
 gataaatgag cgaaaagtta tactagaacy aaaatcggat cagaaatcac gaanaaaaaa 360  
 gcnaaaccag aaaaaaaaaa aaaaagcggc cgctc 395

<210> 8094

<211> 449

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-039-Q1-E1-H9

<400> 8094

attcncggat cgacgggggtt cgtgaacacy gcggggccgg acgggcacca agcgggtggcg 60

ctgcacgtgc anggggacat gtcggtgttc ttcaactgca ggttcgangg gtaccaggac 120  
acgccgtacg tgcacgccaa ccggcagttc ttccgcaact gcgaggtgct gggcaccatc 180  
gacttcatct tcggcaactc ggcgggcgtg ttccagaact gcctcatgac ggtgcggaag 240  
cccatggaca accagggcaa catggtgacc gcgcacgggc gcacggaccc caacatgccc 300  
accggcatcg tgctccaggg gtgcaagatc gtgccggagg acgcgctgtt ccccgtcagg 360  
catacgggtgc ctagctacct cggacggccg tggaaggaat actccaagac ggtgatcatg 420  
gagagcacca tcggcgacct catcaagcc 449

<210> 8095  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-A10  
<400> 8095

tagccgtcgt agaattcaag ggtcgacggg agatacaaaa tatattttca aatatatagg 60  
tcacgtgggc aatgccttgg tgacggcaaa atgggtgcat tcgtccggtg acacagattt 120  
gctatggccg cagtgacaag gtaggtatca gtttcgagat ctacggtttc aagcatcaga 180  
aggtatctaa atagggtgaa ccttgtcaaa gaatggtcac atattatact ctctgaatat 240  
catcctactg aaagtaattg aagccttgcc ttcacgatca tcaaattggtt gcatctctaa 300  
catagtggag cacaatttta tgataacata gactcaaaaa aggaaaaata gacagagggt 360  
ttagaacctt agacgccacc ttctccacct cgctcctcct ccgggtgccc tgcactgctc 420  
c 421

<210> 8096  
<211> 387  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-A11  
<400> 8096

acggggcgaa aggaggtcaa cggatggcac ggaaaaacag gttgcgaagc tgatggacga 60  
ggacatcggg gccgcaatgc aatttctcca atcaaaggct ctctgcatga tgccagtctc 120

ccttgccatg gctatctatg acacacaaca ttcacaggac ggccaaccag tgaagcctga 180  
 acccaacaac actgcctagt atagtaacag cagctgcaac acccatcccc gcagctgcta 240  
 gtaggcatgc atgaacctgt tatcaaagt ttaagataaa aactgctggt tctgatccac 300  
 taactacaag gagggctgga aagacctaaa ggatcctctc cactggaagt tgtatcgacg 360  
 gtatatgatg tcacctacta acccttt 387

<210> 8097  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-A12  
 <400> 8097

tcgacagggg cagctcaact tcgcctcaac accaaaccct agcctcctcc tcctctcgcc 60  
 gccgccgccg ccgcatgtc agggaggaag aagaccgcga gcccaaggag gagaacgtga 120  
 cgctcgggcc cgccgtccgc gagggggagc acgtcttcgg cgtcgcgcac atcttcgcct 180  
 ctttcaacga caccttcac catgtcacgg atctgtccgg gagggagacg ctcgctccgca 240  
 tcaccggtgg catgaaggtc aaagctgac gtgatggatc atcccccttat gcagctatgc 300  
 ttgcatctca ggatgttgct gtaagatgta aggagcttgg aattactgct ctgcacatta 360  
 agctccgtgc cactggtgga aacaagacaa aaactccagg tcctggtg 408

<210> 8098  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-A2  
 <400> 8098

gggtcgacgg cgcagcaatc cttgagtacc ttactgctga ggtccttgag ctggccggca 60  
 acgccagcaa ggatctcaag gtgaagcgta tcaccctcgc ccacctgcag cttgcgatcc 120  
 gtggagatga ggagctggac accctcatca agggcaccat cgctggtggt ggtgtcatcc 180  
 ctcatatcca caagtccttc atcaacaaga cctccaagga gtgaatgaaa tgcaataacg 240  
 ggtagttggt gtgcgttgta tcttcgtgat cccctgttat gttgtgctat ctgttatgtg 300

ttgctattat cacaacctga ataggttgtc tgaatttgtg atggggctag ctttcggtaa 360  
cttg 364

<210> 8099  
<211> 378  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A4

<400> 8099

cggtcgacg gggcttggtga gaaggaggtc atgatgttga tattgcggac cttaaagtcc 60  
agatgtcatc ggctgttgtg ttccttcaac tttcatggct gaagtaacct tttgttcagt 120  
aatctgcgta attgttttct gctttttttt tgagcttgta tcatgaagag ttgtagaata 180  
ataattagcc gcagatgggt aagagaaaac aaagtgccggt tattcaacag gtgctgatgc 240  
tgaacttttg gttaaacaga gctcagtgtg ctatgttagc aagggtgtat gaaaaccag 300  
catccttttt ttggatccca gtggtctctg gttatgtagg gtaaaaatgc tatcaatagc 360  
agaattctgg cttggtgt 378

<210> 8100  
<211> 343  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-A7

<400> 8100

ttcatgtaat ggtgcatgaa ctctctcaaa agacaactcc ttttgtttcg gcgccggtct 60  
tgggatattg ccatatttcc tttcaacttt cgcaaataca cttgtctca tctttggtgt 120  
atgatcccggt ctgaatgctt tcttccactt ttgtgcattg gtctttaagg tgaggatcatc 180  
aatgaacaac ggctcctcct taatgtctac gccatcttct tcatcttcac aataaatgtc 240  
ttcatgccat ggctcgctt ggctcgtaaat cacttcttga ttgttgtggg tgccaatgtg 300  
ctcgacacca tgatcttggc tgtgatcgcc ttgacttttg gtc 343

<210> 8101  
<211> 367  
<212> DNA



ggcgggtattc cccttcatcg ccgtgcacga ggagtaccct taggctccgg cggcgatcaa 180  
 agagacggaa tccatggcgg ggttgcagcc gctcgcgccg cctgctcgcg acgtccggac 240  
 caactggctg ctggcgcgct ccgtgatgca ggtgctcttc tcgaagcacg gcgagctcag 300  
 acgctcgcg aacctgggtg cctccctctg cggcgccagg attccctgca gcccgcggc 360  
 gctggacctc cactccggca gccatagga 389

<210> 8104  
 <211> 292  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-B3  
 <400> 8104

ggtcgagggc caggaagggtg gcaatcgtga cggacatccc caagaatgcg tctggcaaga 60  
 tactgaggaa ggatcttatt aagctcacga cgtccaagct gtgaaatgtc gaccgttatt 120  
 ctgctctgtg ttatcctctg aaatgtcaat tgattcatcc ttggatcctc atcattgtac 180  
 aattattatt ttctcttttg cccttcgtca caatagcact ctgagtatct gtaactgaag 240  
 gatttcagcg gatgtgtagt acatgagagg tctctgtgta aattggttct gt 292

<210> 8105  
 <211> 292  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-B4  
 <400> 8105

agaacaaaga gaggccgctg gtgctccgca acaagggtccc gaggtggcac gagcagctgc 60  
 agtgctggtg cctcaacttc cgtggccgcg tgaccatcgc ctcggtgaag aacttccagc 120  
 tgatcgcggc gccgagcctg ttggaaccgc agccctctct cactctcggc tagaggaaga 180  
 agaagacaca agacacgaga ttttccggtc ggcgcacgaa cgccgccacg ggcgcacgaa 240  
 cgcccgaatc tttttcctct ttgcaatgtc tacatggtgc tcaactcagt ac 292

<210> 8106  
 <211> 385  
 <212> DNA





gggctcgacgg ggatgaggat ggtgacttcg cggagggcgg agaggaaatc tcggaaggag 60  
 aggagtatga caacccaag gccagtgcg ccaagaaga acaaataggc gagggtgagg 120  
 agaatggcga ggatgatgag gaagaacaag aggagcagga cgggtggagga ggtgacgcg 180  
 atgatgatga tgacgcgat gatgacaatg aggacgcga cgatgatgac gacgatgtcg 240  
 ctgctgaaga cgatgaggat ggagtagaag aagaggatga cgaccaggac aacgcgatg 300  
 atgaggaaga cgatgacgaa gactcgctcc agccccgaa gaagaagaag aagtgaagcc 360  
 cttcgacgcg gctgctttag gtcacatgca atgagatgtg cctgttcttc actgtgtt 418

<210> 8109  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-C10

<400> 8109

gtagcgctct acattcaagg gtcgacgggc aatggaggat gtaggtgtga tatgtcaagt 60  
 agtggacaga taagccaacc actggatgtg gttttgaggg atttttgcag tggggtttgt 120  
 acggtgctat gccgcgctgg gtttgggatt tgaaataaaa cgaagggaga tgtgccacgc 180  
 tcttaaattgc cagtcttctg ctctaattct gctaaattta tgcattctgt tacattctgc 240  
 agccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaaatttta aaaaaaaaaa aaaaaaaaaa aaaaaaaagg 360  
 gggcccccaa aaggttccaa ccttaat 387

<210> 8110  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-C11

<400> 8110

attccagggt cgacgggtac ctgataccca agggggcgac ggtgaacttc atggtggccg 60  
 agatgagcag ggacgagcgg gagtgggaga agccaacgga gttcgtgccg gagcggttcc 120  
 tgccaggcgg cgcgggcgaa gctgtggatg tgaccggcaa ccgggagatc aagatgatgc 180

cgttcggcgt gggccggagg atctgcgccg ggctgggcat cgccatgctc cacctggagt 240  
 acttcgtggc caacatgggtg agggagttcg agtggcagga ggtcgccggc gaggaggtgg 300  
 acttcgccga gaagaacgag ttcaccgtcg tcatgaagaa gccgctgcgc ccacgcctcg 360  
 tgccccgaa ggctgagac aaagtccatc tccatcagcc agtaatcaaa tccgaacaat 420  
 agtcactc 429

<210> 8111  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-C12  
 <400> 8111

tagccgtcgt aaattcaagg gtcgacggga gattctaaat atattttcaa atagacatgt 60  
 cacgtgggca aggccttggg catggtgata tgtgtgtatt cgcccggtga ctcagtataa 120  
 cgatagcctc tgtgcacagt gatgtttcag tttctacatt gatggtttca agcataagaa 180  
 ggtttcataa ttaggtgagc cttgtccagg actggtcaca tattatgctt tctgagtttc 240  
 atgctactga aagtaattga agctttgcct tcgcatgta agaatggttg catgctgtta 300  
 aatagtggag cacatttttt tgataacata gactcaaaaa aggaaaaata gacagagggg 360  
 ttagaacct agacgccacc ttctccacct cgctcctcct ccgggtgccc tgcattgctc 420  
 ctccggggcg tt 432

<210> 8112  
 <211> 293  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-040-Q1-E1-C2  
 <400> 8112

cagctaaacc caagctccag tgcctacaag gtcacatcg acttggtcgt cgaaaaatac 60  
 ttcagataga atgaactacc agctaactat gagtggtaaa ggaccaaagg ggaaaggagg 120  
 aaaaatagaa ggaagaacgc aggattttga ccaacaatca gtaaagggtt gacacgtgtc 180  
 gcacaaatat aaggatgaaa aatctgggac tgaccaacaa tcagtccaca gattttgttt 240

tcagtttagg tcgaattttt tgcccaataa cgggttgaca catgtcgctg aaa 293

<210> 8113  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-C3

<400> 8113

gggtcgaggc gggatactaa tcgagaggtc tcgagttcaa atctctagct gatagaaaaa 60  
ttggtgtgtt cctgttgatt gggcctgata ggcaggaaag cccatctcag cctcattaat 120  
cttgcatttc gtcgttggcc taccatctgt agccccagtc ccaacgccag gacgatggcg 180  
gccgcgggac ctcttatctg ccgcattctg cggcagactg gcgggggttc gcacagggtta 240  
ctctttctct gggccggccc acacagaagc agccggtggt gaaaaaaaaa aacgcataaa 300  
aagatacatg ttttgaaaac aaactgcatt cgaacttcta aaaaagttta gatctgccgt 360  
ggattatgtt cttatagtgt ttgctgctta atattgggaa agaacgtt 408

<210> 8114  
<211> 462  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-C4

<400> 8114

gggccagaat aacgggtcga cggcgcagga ttgacaaaat gggctattga gctcttacca 60  
tttgatataa cttacaaacc tcggcgagct ataaagtcac aagttttggc tgactttgtc 120  
gctgaatgga ccgaagccga actccctaaa gaggacggcg catactccaa ttggattatg 180  
cacttcgacg gctctaaaat gttagccaga ttgggggctg gcgtcgtatt gacgtccccg 240  
accggggaca cagtccaata cgtacttcag ataattgtaca cggactccaa caatgcagcc 300  
gaatacgagg cccttttaca tgggtctccgg atggcaatct ccatgggcat tcaacgccta 360  
gaggtgcgag gggattcaaa cctcgcaata tcccaaataa acggagactt tgacgcaaaa 420  
gattcgaaaa tggcagcata tcgcaacgct gtcctaaaca tg 462

<210> 8115

<211> 315  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-C7  
  
 <400> 8115  
  
 cccgggtcga cgggctatgg taatagttaa tttgattctg gtgaaaaaca caaactttgc 60  
 gctcacgaga aaaaattcaa taaatctaag aaatgtgctt ttgcgtagat tatttttgct 120  
 gtagatcaat agacaaatct cctaatactt cctatttttg taggattttt ggagttccag 180  
 aagtattcga aagttacagc ttgctacaga ctgttctgtt tttgacagat tctgcctttc 240  
 gtgtgttggt tgcttatttt gatgcatcta tggctagtat gtaagggtat gaaccataga 300  
 gaacttgga tacag 315

<210> 8116  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-D11  
  
 <400> 8116  
  
 cacgggactc cctaatttgg taggattttt agagttccag aagtttgcac taattacaga 60  
 ttgctacaga ttgttctgtt tttgacaaat tctgttttac gtgtgttggt tgcttatttt 120  
 gatgaatcta tggctagtaa aatagtttat aatacataga gaagttggaa tacagtaggt 180  
 ttaacaccaa tataaataaa gaaggagttc attacagtac cttaagtagt tctttgtttt 240  
 ctttctctaa cggagctcac aagatttcta ttgagttttt gttgtgaagt tttcaagttt 300  
 tgggtgaatt ctttttggtg gattatgaaa caagagtggt caagagccta agcttgggga 360  
 tgcccatggc accccaaga taatccaaag acaccaaaaa gtcaaagctt ggggatgccc 420  
 cggaaggcat cc 432

<210> 8117  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-D3

<400> 8117

cggatgatgc caatggccct gcgtggaggc gcagttggct tectgcttcc acgtcatcgt 60

tcctgaaggt cgatgattct ccttgtatgt tcttgtatgg atgcctgctt tccttctgtc 120

ttctgtttgc aatgctttgc tcgtcgtgaa gacgaacagt acaaataacg tgttaaaacg 180

tgaagatgaa atcgaataga gggcaccggc gggaattgat ccaccgccgg tggttgaaaa 240

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaaaaa aaaaaaaaaa 300

aaaaaaaaaa aaaaaagaaa aaaaaagacg ggaaaaaaga ggagaaaaaa aaaaaaaaag 360

gggggcccc aaagggttct aagttttatt tcccggtaa ggaaa 405

<210> 8118

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-D4

<400> 8118

ccgtcggatc caaggcccg caccagtcgc cgggcagcaa gaagatcgtg ggcgtgttct 60

accaggcccg cgagtacgcc gacaagaacc ccaacttcgt cggctgtgtt gagggggccc 120

tcggcatacg cgactggctc gagtccaagg ggcatacta cattgtcacc gacgacaagg 180

aggggttgaa cagcgagctg gagaagcaca ttgaagacat gcatgttctg ataaccaccc 240

cattccaccc agcctatgtt actgcagaga ggatcaagaa ggcaaagaac ctcgagctgc 300

ttctcacagc tgggattggc tcagaccata ttgatttgcc agctgtctgt gctgcaggct 360

tgacagtggc tgaggttact gggagtaaca ctgtctctgt ggcagaagat gagctcatgc 420

gcatcttgat t 431

<210> 8119

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-D5

<400> 8119

cggggaagat cagcccccg cgggaggaga cccccgccgc gtcggtagat gagggaggaa 60

ggcagtggcg cagtcattggt ttagatatga aagtttttggga caccgagcgg aactcagtgg 120  
agagcttata tatgaaaact agcgagagag agagagagag agagagagaa gacgatattt 180  
atgcaattag aagagaacta tagacattgt ttttccccta agctcaataa ggtctgtgtc 240  
ctttgtggac tgcgttttctt ctttgttagag acagaacata atataatacc gaggattgca 300  
gtcaaatgga aattaatttc aggttttgaa cttga 335

<210> 8120  
<211> 274  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-D9

<400> 8120

acggggcgac atgagcatcc gagtggcagt gcttcgcact ttgagcagta gggataacttg 60  
atcatagga aaggaaggg agatgagttc gtgcttgcatt gatttttagg gaaagagcgt 120  
gtgtattgta cttctatgtg catgaagtgt tttgtttggg ccaagcccaa ataataaaaa 180  
taaaacacta tctctaaaac tattcaaata cttttgcatt tattatcttc tgcaaaaaaa 240  
ggggaaacaa acaatcgacg agaggggcga gctc 274

<210> 8121  
<211> 265  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-E1

<400> 8121

ggtccacggc gatcttgtgg ggcaattagc agacctgggc gaagcagatt acacagccgt 60  
caacagagct ctgtgtgcaa tgtgccagta caatgccagc ggcagctacg tgggtctcgga 120  
cctgtcgaac gatccagaca tcaggaaggc taccatggag gacatagcgc atcaaataccg 180  
ccagcaatgg tcagctcacc gtccgacgtg atcaacctgt cgtactcagt acaaccagtg 240  
gttttccatt tgggggttcg tgaag 265

<210> 8122  
<211> 454  
<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-040-Q1-E1-E10

<400>      8122

taggcgtcga gaattcaagg gtcgacgggg gaaccgctac atcgcgccgc cgaacctggc    60  
ggcgaagctg atcacgaagc ggctgtacgc ggaggaggcg gagggtgaaga actgggtgtg    120  
gcactcggag ggggacctga tgctcaacga cgccgtcttc gccgacagcg gcggccccaa    180  
ccagaggaag ttcgagaagg atgacctcat cccgccaag cggggtcgt acgtcaccag    240  
gtcacgcgc ttcgcgggt gcttgccgtg caagcccgcc aagccctgct aaaccttggc    300  
ggccccgccg gccggccgga gccgatccct tccgaatctt caattctata gctttgttca    360  
attcttttac tcaaagattc gtgtatgtaa tactaggaca tttgagtagt ctaccgggtt    420  
cagatcagaa ggccctgtag gttgttcttg tacg                                    454

<210>      8123

<211>      181

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-040-Q1-E1-E3

<400>      8123

acggctacat gaaagtctga tcgattcgaa gcagggtgag ttcagttcag ctagaggaag    60  
acgaacgcgt ttcgatcagt ccgatctcct gctcctttta catgatgatt actattatct    120  
taatcttagt gcatgtgtat gtaatatgca ccatgaattg gtagtgcaaa aaaaagaaaa    180  
g    181

<210>      8124

<211>      355

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-040-Q1-E1-E4

<400>      8124

tcccttcaat tatatttact ttacatataa gttttgtctt aagtcaaact tcgtaaagtt    60  
tgatcacatt agaggaaaaa atatcaatat ttatactatc aatcaatc attgcatcac    120



ggaattaatt ttcattattgt atatcttttc tattatagat gttgatatat ctttaataata 180  
aaactgggtca aaattttatta aatttgactt aaaacaaatt tatatgcgga gtaaaagaga 240  
aacaggggga ggaagcggcg ttctgtctcc aaggcgcac tattcaaaaa cttctgaatt 300  
tttgtgtggt gaaagatgct ttgggtccct gccaaattta tottgtttgg acatt 355

<210> 8125  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-E6  
<400> 8125

cgggggagggc gacggtgcac ttgtgacctc aaccaggcga gcactcctcc tctcgcggt 60  
cgctcgtctcc gatccaccgc cgcttccgca gccatggtga acgttccgaa gaccaagaag 120  
acctactgca agaacaagga gtgcaagaag cacacctctc acaaggttac ccagtacaag 180  
aaaggcaagg acagcctttc tgctcagggg aagcgtcgtt atgaccgcaa gcagtctgga 240  
tatggtggcc agacaaagcc tgttttccac aagaaggcca agacaacaaa gaagattgtg 300  
ctgaagctgc agtgccagag ctgcaagcat tactcacagc gtgccatcaa gaggtgcaag 360  
cactttgaaa tcggtggaga caagaagggc aagggaacat ctctcttcta atctgatgat 420  
aacaacgtta agtttaaaaa gttgtgc 447

<210> 8126  
<211> 104  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-E7  
<400> 8126

gctatgacac actgaccctt cccatatttg catacatagc tttaaaatct gaaatatttt 60  
acaacatcag gatgttcttt gattcggtaa cattcttctc gaat 104

<210> 8127  
<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-E9

<400> 8127

acggggctgg ttaaagagga agccgaggca ccacttttca acggtgaacc cacccacagc 60  
tcattctgca taaccaaca gaccaagcaa cacaaatccg attcattccc ctcccaagct 120  
ccaatcccg cgaattctcaa gcgtggctgt catcatcatc acccagcatg atccgtttca 180  
tcctgttgca gaatcggcag gggaagacgc ggctggccaa gtactacgtc ccgctcgagg 240  
actcagagaa gcacaagggt gagtatgagg tgcacgggct ggctgtcaac agggacccca 300  
agttcactaa ctctgttgag ttccgtacgc acaaagttat ctacaggaga tatgcaagac 360  
tatttttctc aatatgtgta gatatcacgg ataaagattt ggtata 406

<210> 8128

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-F10

<400> 8128

cgggctccta ttatcttttt gaattctcca aactacacta tatcggagaa gtttgtgctt 60  
attaaggatt atattgatgg gttgcctttt actactacac atgatgggtt tgatgaatat 120  
aatatgtatg tgcttgctgc tctacttgc aattattatg agagaggaac tatactctcca 180  
cctctctatg tttccaatac gataaaattg caagaaactg tttatactat gcattggcct 240  
ttactaagtg tgcataaatt gttcttttat gacatgccga tgcataaggaa gagagttaga 300  
ctctgttggt acatgatata tgttacgttg tgctccccac taaattacaa atcactgtta 360  
attaaaattg gctttgatat accttggaa cccgggt 396

<210> 8129

<211> 296

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-F12

<400> 8129

cgggcaggtt gcatagctga ttggcaggat agtgaagtgg ctgaagcccg gtgggcatat 60

tttcatcagg gagtctgtgct tccaccagtc tggggattcc aagaggaaag tgaacccgac 120  
gcactaccg gagccaaggt tttacaccaa ggtgtttaag gaatgccact cctatgacca 180  
acatgggaat tcctttgagc tttctctggt aacttccaag tgcattggag cttacgtgaa 240  
gagcaagaag atacagaacc agatatgttg gccatgggag aaagtcaagt gcacag 296

<210> 8130  
<211> 282  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-040-Q1-E1-F3  
  
<400> 8130

attgtctggc tattcatgca attctatatg agatgcactg gacgttgacg ctgctcgagt 60  
aatgatattg tttgagacca tgcgttgcaa ggtattgaga gactatagtt acagcgagtt 120  
gcggcagaca ggggagagag aactgcatcc gattggtttg ttaggacata gataaggaca 180  
tcatcagtat atgctctgaa gattaggtaa cttagcacag actttgcagt ctacttatat 240  
caggttgaaa ccacgtcttc ctgagattca ccgcccagtc tt 282

<210> 8131  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-040-Q1-E1-F4  
  
<400> 8131

gtgcaggagt gtagaacaca tgtaatagga taaaatagga tgaaatttta ttttggtcga 60  
ttggattggt tagtttcttc acgcaaactt tgccggggcc tggcctcaaa cacactactc 120  
aaattcagat ttcattcatc aagtggttcc gccacaaaat cgctgaaccg caattcaaatt 180  
gttgcatgct tgatgagccc actctgcaca attagctgga gatgcgtgcg tgtgtgcagc 240  
ttacaagttg gaaacacagt cacagaccaa agctctggtg tttccccacc tgctgggtca 300  
gctcagacac aatttggtca ctggactaga gggaaacaga caatgcattg agctcacaca 360  
aaccaaaact ttggcacaag ttcattgatc actg 394

<210> 8132

<211> 304  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-040-Q1-E1-G10  
  
 <400> 8132  
  
 taggcgtcgt aaattcgtag ggtcgacggg gaactcaata attctagaat aagcaatagg 60  
 ggatagtcga attggtttna acaccttccc gttgtgctca atgnncaacc cttcctttgg 120  
 gtattgtntn ntagtaaaca ntnntttgca tgctgcccag ttttgttgct nncgcaaacg 180  
 atagggaact agttgcactt gaacacagct caattctagg gttnttctag tgcattgggt 240  
 tccttnngat aatacgttgg ctttttgctt tcgacatgta tttcgacagc aatttcaagt 300  
 acac 304

<210> 8133  
 <211> 141  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-G11  
  
 <400> 8133  
  
 gatttaatgt tgaattttgt gttgtaaagt tttcaagggt tgagtaaaga tttgatggat 60  
 tttggaataa ggagtggaaa gatcctaacc ttggggatgg ccattgccct caactggaac 120  
 ttctcccgt tcacgaactc t 141

<210> 8134  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-G12  
  
 <400> 8134  
  
 attctagggt cgacgggtat gcaataactt tggggtttat ggaagtggat gcacaagcag 60  
 tattcctgct tagtacaagt gaaggctaga aaaagactgg gaagcgacca actagagagc 120  
 gacaacagac atgaacatgc attaaaatta accaactg agtgcaagca tgagtaggat 180  
 ataatccacc atgaacataa atatcgcgga ggctacgttg attttgtttc aactacatgt 240

gtgaacatgt gccaaagtcaa gtcactcgaa tcattcaaag gaggatacca ccctatcata 300  
ccacatcaca actatTTTTaa tagcatgttg gcacgcaagg taaaccatta taaactccta 360  
gcaaattaag catgacatta gcaactataa tctctaattg tcattgcaaa catgtttcat 420  
tcataatagg ctgaatcagg aacgatgaac taa 453

<210> 8135  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-040-Q1-E1-G3  
<400> 8135

gggtcgacgg ggtcaggaaa aagtggggcg gtggcgatcat gggctccaag tcgcaggcca 60  
agaccaaggc cagggaagg ctcatcgcca aggaggctgc gcagaggatg aactaagcct 120  
agccttatat gtgagagcat atgccatgta gtttcccttt cagtgtgtcc tgattttgac 180  
gaggaactcg aaccctttta gcagcagtgt ggaatcgat tgtggttttc tgattctctg 240  
ttcccttctc cagacttatg caaagatcag atgaggttta cccatgtttg gattctatat 300  
agctttatgt cttttgtcga gtcaaaaaaa aaataaaaaa naaaaaaaaa aaaaaaaaaa 360  
aaaagcggcc gctct 375

<210> 8136  
<211> 207  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-040-Q1-E1-G5  
<400> 8136

cggggaagaa tacgatgaat aggaagagga agaagaagaa gaagaagaag aagaagaaga 60  
agaagaagat gaagatgaag aagaagaaga tgaagaataa gaagaagaag aagatgaaga 120  
tgacgaagaa gaagaggaag attaagatta ggatgtataa gaagatgaag aagaagaata 180  
tgaagcataa tatgacgatg aagatga 207

<210> 8137

<211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-G6  
  
 <400> 8137  
  
 cgggtcgacg ggggtacccaa ctagttatgt tatattacat gggtagtaag aaacatcttc 60  
 caggggagaat agttccgtta agggttcctt tccctgggta agcatgccct aaagtgcattg 120  
 tccggactgc gataggaaac acaggaaaaa acatctgggg gcagatatgg aaaataaata 180  
 aaaatcatct ttttttcgcc gaccaaata tcccttaaga acgctagctt ttggcttcac 240  
 ccagtctgag gtacacatcc ggctgaccgg gcagtaacaa tcgcagaggt gctcccctta 300  
 tgccctagcc gaattaacag gaacgtaggg cataaatata agagccaggc aaccagctt 360  
 ggccaaaact taagtcatat cgatgcatat aatggcgaaa aaaggtagat g 411

<210> 8138  
 <211> 257  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-G7  
  
 <400> 8138  
  
 ccggtcgacg ggccaccgaa ctccctccagc ctccacctgc gattgttcaa ctageccctct 60  
 ccatgggctc ctgttcaacc acccctccac gggctactgt tcatccagct ctccaccggc 120  
 aactgttcaa cccgccctcc accggtact gttcaacctt ccctgcacaa tctcttcgtg 180  
 aataccatt tctctcctta gggttggttt ctctcaatat ccgatacaca cacacatata 240  
 cagatagaga gatagac 257

<210> 8139  
 <211> 228  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-040-Q1-E1-G8  
  
 <400> 8139  
  
 cgggcaaggg tattcatcaa aacaaatccg aagcggtttc attcgatttg ttgtgtactg 60

gatggtggaa aacttactcc acagcatgca tttcaacaag atttccagta gcacgtgtta 120  
 aggagtcgct ccagcgtgat actgtggatg tcttcccgtg cacaatctct tcgtgaaaca 180  
 ctagatctcc tttgagcttt ctctggctgc ttcgacgtgc attggagc 228

<210> 8140  
 <211> 283  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-H1

<400> 8140

gttaattatt ttaagccagt gaaacttact aatagtagca ggccactagt acttacgttc 60  
 tgaggccata tatataggta acaagtagtg gcagaggcca gtattttgcc aacgccatat 120  
 gtacaaatgt gttccgtttt ggctccacat gatttcccgt atgttcatat gaaatttacc 180  
 gcagtgttct tttaaaccatc agtggttgata cttgaaaaaa aacaaaaaaa aaaaaaagaa 240  
 aaaaacagcc gacctaagaa gaatccaaca ccgacgtccc cat 283

<210> 8141  
 <211> 334  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-040-Q1-E1-H12

<400> 8141

tccacggggg aagaagaang aggcggaggg atggggcgcg ggaagatcga aatcaagagg 60  
 atcgaaaacc agagcaaccg ccaggtgacc ttctcaaacc gcaagaacgg gatcctcaag 120  
 aaggccaggg aaatcaccgt gctctgcgac gccgaggtcg gcgtcgtcgt cttctccagc 180  
 gccggcaagc tctacgactt ctgtccccc aggacctcgc tatcaagaat cttggagaag 240  
 taccagacca actccgggaa gatactgtgg gatgagaaac acaagagcct cagtgcggag 300  
 attgatcgaa tcangaaaga gaatgataac atgc 334

<210> 8142  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-H2

<400> 8142

tccacggcga ggttgagaag cagattggca ggatagtga gttggtgaag cccggtgggc 60  
atattttcat cagggagtcc tgcttcacc agtctgggga ttccaagagg aaagtgaacc 120  
cgacgcacta ccgggagcca aggttttaca ccaaggtgtt taaggaatgc cactcctatg 180  
accaagatgg gaattccttt gagctttctc tggtaacttc caagtgcatt ggagcttatg 240  
tgaagagcaa gaagaaccag aaccagatat gttggctatg ggagaaggtc aagtgcacag 300  
aagacaaagg ctttcagaga ttcctggaca atgtgcagta caaatccact ggaatcctgc 360  
g 361

<210> 8143

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-H3

<400> 8143

attatgacat ttacatagcc attccgagat atattacat gcaactttcc accgttcggt 60  
ttattatgac acgcaccatc attgtcatat tgcttttgca tgatcatgta gttgacatcg 120  
tatttgtggc aaagccacct tcataattct tccatacatg tcactcttga ttcattgcat 180  
attctggtac accgccggag gcattcatat agagtcatat tttgttctaa gtaacgagtt 240  
gtaatattga gttgtaagta aataaaagtt tgatgatctt cagtattaga gcaatgtccc 300  
aagtgaggaa aggatgatgg agactattat tccccacaa 340

<210> 8144

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-040-Q1-E1-H9

<400> 8144

tagccgtcga gaattctagg gtcgacgggg ttggctcagg atgttatgtg cacagcctgt 60  
gagatggctg ttgtgtggat agagaaccag ctccgtgaaa aaaaaacaaa ggagctgata 120



ttgcaatatg ctaaccagct gtgtgagcgt ctaccgagcc ccaatggaga gtcaacagtc 180  
 agctgccatg agatgtcaaa gatgccgaat cttgctttca ccatcgcaaa taagactttc 240  
 gtgctaacac cagagcagta cgttgtgaaa ctggagcaat cagggcaaac cgtctgcatc 300  
 agtgggttca tggcattcga cataccgccc ccacgtggtc ctctctggat tctcggggat 360  
 gtcttcatgg gcacttacca caccgtgttc gacttcggca aagacagaat cgggttcgca 420  
 gaatcagctt gaggagtcca gagcactatg aaatt 455

<210> 8145  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-A11

<400> 8145

gggtcgacgg gacgcgcaag aggacatact gcaagatggg gcttgattac tttcctggga 60  
 acaccgagga tgtcagacgg ttgccacgca aacacgtcga tgttcgcccg caggaaagca 120  
 acgagcgcgc tttcctatct agggtcgaga gtggcactga tggatgaagg accaccagtg 180  
 ccgtctctct tggcggacac cttcttgggc tctgggtggag ctgccattgt cttcttacac 240  
 ttgccgggtg agcttgatgg tgcgtctctg acggtagcgc agcactccga agaggtgcgc 300  
 ttgccggagt gggcatcaga actcttgccg gacttggcct tcttcttccc cccggaagct 360  
 tcaacggcaa gtgacttgcg atctgtttcg ggtgctgctt cccggt 406

<210> 8146  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-A2

<400> 8146

gtcgacgggc tgcaggctgg tgtacgggat gatacgccgc tttgtctcgg ccacgggggtg 60  
 gccggtcagc cgcattcagc gctagtagtg taggctctag tgcctcctcc tcgaattgag 120  
 gtaacaacct gcgctttggg taactcttgg ttgggcgctt gagtctgtat tgctcgggtg 180  
 ccaggacctc agtccatcta tcagtttagca gatcttgatc agcttgaagt tgttgttgct 240

ttttcttttag gcatttttgca gtggctataa gccggcgctt gaagcgctgc tgctcgacgg 300  
gacctcagg cagcagcaat tcttcgtccc caaggctcac ctcacttttg gagagggcca 360  
tgtaattaac atcctccgag tctcatacat tgctgtttt tc 402

<210> 8147  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-A3  
<400> 8147

gacgaaacc aactatctac ataattaggt actgaacatt aggagtagag atagatctga 60  
gtcgcgccac cgcacctttc tgctcgacg ccggtgactc tcacgtactg gcggcgccgt 120  
gacgctggaa agtttagcga actccacaca tccaaacaga cgttgatcca tcgacccgaa 180  
ccaagaatca acaccgagag ctggcgaga tgatgtcact gaagccctct gcatccgccg 240  
ccgccgaagg ctgcaggatt gcctcaacct ctcgctccgc gctgacggcg aggtcaacac 300  
cattgcaagt aattaatatt ttgggaaact tcgttagaat ttggtctgtg tattcgttgt 360  
atagccactt gtccagtact ggggattc 388

<210> 8148  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-A7  
<400> 8148

gcgggtcgac gggggtcact agatagtatc attgtacctt ctctcttttt ctctcatttt 60  
tttgggcctt ctctttttta tttccttctt cttttttcct cacttgggac aatgctctag 120  
aaaatgatga tcatcacatt tctattttatt tacaactcaa tgattacaac tcgatactag 180  
aacaagtat gactctatat gaatgcctcc ggtggtgtac cgagatatgc aatgaaccaa 240  
gagtgacatg tatgaaagga ttatgaatgg tggctttgcc acaaatacta tgtcaactac 300  
atgatcatgc aaagaaatat gacaatgatg aacgtgtcat gataaatgga acggtggaaa 360  
gttgcattggc aatatatctc ggaatggcta tgggaatgcc ataataggta agtaagggtg 420

ctgttt

426

<210> 8149  
<211> 392  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-B1  
  
<400> 8149

ggtcgacggg gaacgtgctc accatcttcg aggaggaagg cgggcggccg gacgccatca 60  
tgatcctgac ggtgaagcgc gacaacatct gcagcttcat ctcgagagacc aaccccgggc 120  
acgtgcggtc gtgggagacc aaggacagcc agctgacgat ggtggcggac gacctgaagc 180  
cgcgggcggt gctgacgtgc ccggagaaga agttgatcca gcaggtggtg ttcgccagct 240  
acgggaaccc gctggggatc tgcggcaact acacggtggg caaatgccac acgccaagg 300  
ccaaggagat tgtggagaag gcgtgcgtgg ggaagaggag ctgcgtgctg gccgtgtcgc 360  
acgaggtgta cggcggggac ctcaactgcc cg 392

<210> 8150  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-B11  
  
<400> 8150

cgggtcgacg tcattcatcg tggccccgta ggggcacacg aagcccttga acgccgtgca 60  
gcaccgccgc tgcgggatcg cctgtcccaa gcagctgcc tgtaccttgc ccatctgctt 120  
caggtgcccc aactgcaccg ggcacagccc tgcctccatg aagcccccca gtttgcgggc 180  
gggcgacggc gatgcctccg ggggcgaggc taaaagggcc gcatttgata tgatgagtgg 240  
tttgtccgac gcggcggagc cggcggcgac aatggacagc acgacgcagg acagaaggac 300  
ggcgggtggc cgggtggaac ccatctatct ctctctcttc cacggcgccg gagcaagacc 360  
gaactctgta tcttcgtggg aacgaagctg aggtgaccgg g 401

<210> 8151  
<211> 420

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-041-Q1-E1-B5  
  
 <400> 8151  
  
 gggtcgacgg gtcccgtgt tcaggctact ggcctccga caacatcgac accgaggacc 60  
 tcgatggctc cggcgaaaca ggagaagatg agtggcagat tctctgaatg aaaggggaagt 120  
 ttaacttcag ttgttcggtt aaaccttcac atgaccactc attgggttaa tgtcccgctg 180  
 tgtgaagtaa agacttcaaa aacctcgtgt gaaatccagg gtttccagtt ctacggaaca 240  
 agcgggtgtg ctgcttggtc cgcgtagctg cgagtcgga aaaggtagga accgttacgc 300  
 tgatcatcgg atcggcacca agttgggtcg atgggaaatt cctctgtacc ataccgtacg 360  
 cgctgttgtg ggtgactgca aaatgtatct attgattggt taaaaacttt cccttggtat 420

<210> 8152  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-041-Q1-E1-B8  
  
 <400> 8152

ggtctagaac tcgcgggtcg acgggtatct gaagctagag tcttattcac cacatgatat 60  
 gtgttttgcc tggagcatct tgtatgattt gagtcttga ttttagttt accacaatca 120  
 tccttgctgt acacccttt tggagagaca cacatgaatc ggaatttatt agaatactct 180  
 atgtgcttga cttatatctt ttgagctaga taatttttct ctagtgcttc acttatatct 240  
 ttttagagca cgatgggtgt ttattataga aatcattgat ttctcatgct tcacttatat 300  
 tactttgaga gtctttttaga acagcatggt aatttgcttt ggctacaaaa ttagtcttaa 360  
 tatgataggc atccaagatg ggtataataa aaactatcat aaaaagtgca atgaatac 418

<210> 8153  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-041-Q1-E1-B9  
  
 <400> 8153

cgggtcgacg ggaaacacca ttatctatgg tttaaacctt cttttctcac aacccaacga 60  
 cgaggacccc ttgaatcatg aagccgcggc cgctctccgg gacaaccgc agaagttcca 120  
 gagaaacggt cagatggcaa tgcggggagg ctatgtcgat aacacccatt tcccaagggtg 180  
 caagtaaggc ggccggggcg gctgctatg tgcttgcttc tggcttgccg ccacctaccc 240  
 taccctagcc ctgaatgcc aaccattgca caatctgaag aaatgcgggc ggcataccca 300  
 ggaaatgtat ctatcatact tgtttgctgc aagaagatgt gactgctatt gtgcttgctt 360  
 ggtggatggt ctggaattgt cgtgtaacat gaagaagaaa tggggtgacg ttatg 415

<210> 8154  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C11  
 <400> 8154

ctgcggggtc gatgggatgc tctagggtga atcggaataa atttttgtaa tggggtagt 60  
 aggggtgagag aggagacatg gataattggt accgctgctg cttactttgg gtctgcgggt 120  
 gttggagggtg gttgagactg ctggtattag tctgttgctc gagctgtaga gaactctttg 180  
 ctgctgctgt tacttccttc tgatgtttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aatttaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaaagggggc cccccaagg gttcaagctt aatttccct 360  
 tcaaggcaat ttaaaacccc ttcaaagggt cccccaat 399

<210> 8155  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-C4  
 <400> 8155

tcatgggtcg atgggatacc tcatagtga tctactaaa cctattgatc attaaacttag 60  
 attttcccaa gattttggct gctattccga attactctat tattccgaag ccaatgaaaa 120  
 gtaagtagaa cctacaaaaa tggggttttc tattgatgcc ttgaataaca tatagcttac 180

ctatagacaa aaaataaaaa aaaaaaagta attatgtttc ggaaccaggc aaaaccagat 240  
 tgctgtgcc taggaaggat agctatacta attcgggtata ctcaaaatac accttttgga 300  
 caaaattgac aatctcaciaa ggatgaaata tcagtaattt tctatttact ggtcgatccc 360  
 atctttttacg gaatcaattc ctttttttga atgtacaaaa attttgggag ttcagcatgt 420  
 ctggaaacac ggg 433

<210> 8156  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-D1

<400> 8156

gtcgacgggc ataacaaact gacatctgat ggtgccatct cagtgaatga tgcacagaca 60  
 gctaccgtca aggccgaaga aagcaacgca aacaaaacta aaggctcctgt ggaggagagc 120  
 agttgattta tctcctgcc tttactagtt tggagcagct atgatttgat gctcgtcagg 180  
 agttgagaac ggaaaaagat gccgattcga gttcaggcgt gggctgctgc tgcttcagtt 240  
 gtgaacatca tagtccttat ttcgcctcca cttaggttat agtttcaata tcatagttcc 300  
 aaaattcttg ttcgtgggtc cttgcttccg tgttctttct tgttttcttc tctttatttt 360  
 tttacttggt ttgtgtcgtg aatgctgtta agtttttagtg gcctttctcaa ctctttttgg 420

<210> 8157  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-D10

<400> 8157

ggtctagaac tcgcgggtcg acgggggtgg tcaaagaaac tggatgcatg ttttcattat 60  
 ttctggtgtt cggtgtactg ccatgattgc agatgaatag atatgaagtt ttctcgcaaa 120  
 aaagaagtaa gaggtttttc aatgttatcg ctgtaacgca agaataagag tcagttcttt 180  
 tgctagctcc tagaataaac tgaaacaagt tgtcccttac ccaacttatt ctaaaaatcc 240  
 aaccaaattt atcttttttag aagcctacta attaaagact taactagtag gattttaaaa 300

tttatttttg gttaggttcc tagaataaac tgggtagggg tagcttattt tacaagcccg 360  
 aaaaggccac aaaaagaata gccctaagg cacgttgctt tgattacaac tataacataa 420  
 ttcaagtaat acactttgca aag 443

<210> 8158  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-D11  
 <400> 8158

ctcgcgggtc gacgggttgc cagaacgggt ttcgcataag acgtgtttgg aagtcctagg 60  
 ccaaacgagt atttcacgga aagccgacaa ggaattccgt taataaccga ccgttttgat 120  
 tctttagaac aactcgatga atttagtaga tccttttagg aggccctcaa tgaccataga 180  
 tcgaacctat cctattttta cagtgcgatg gctggctatt cacggactag ctgtacctac 240  
 tgtttttttc ttgggatcaa tatcagcaat gcagttcatc caacgataaa ccaaattcca 300  
 actatagaac tatgacacaa tcaaaccgga atgaacaaaa tgttgaattg aatcgtagca 360  
 gtctatactg gggtttatta ctcatTTTTG tacttgctgt tttattttcc aattacttct 420  
 tcaattgaga aaaagaaaga gact 444

<210> 8159  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-D3  
 <400> 8159

gtcgatgggc atccctaaac tgagtcgtaa tattcgcgac atggaaaaca ctctcctcca 60  
 aattctacaa tgctttgatg aagggtgatg ctgatcaaaa ccttttcgag aagggttaagg 120  
 agctagcaaa gcgcattgat gaggatgggt gcagactagg catctcaaca attgattcgc 180  
 tggatgaagc ctatgtgggc gctggagagg tggataaagc tgaatctata ctgcacaagc 240  
 tgtctaaaag taacaagatg aagcctcagt acagctcata cctcatgttg cttgatactt 300  
 attcaaagaa aggggacatc cacaattcag agaaggtggt tgaccagttg cggcagatgg 360

gttataatgg gagggtagg cagtaccagt tgctgctaaa tgcatatgtg caatcaaaga 420  
cacccgttt 429

<210> 8160  
<211> 77  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-D8  
  
<400> 8160

gacgggtaat ttcataact aacggagctt atgagttttc tgctaagttt tgtgttgga 60  
agttttcacg tggtgga 77

<210> 8161  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-E1  
  
<400> 8161

ggtcgatggg gatcacgata atgagtotta ctatgcctcc agttgatgag aaaaagaagg 60  
tagttgaaga tggtgacaag gatcgaagat acgcaattga tgcattcatt gttcgtatta 120  
tgaagagccg gaaagtctta ggccaccaga cactagtaat ggagtgtgtg gagcaacttg 180  
gtcgcattgt caagcccgac ttcaaagcaa ttaagaagcg cattgaggat cttataacca 240  
gggattacct ggagaggagc aaggagaacc cgaacgtcta ccgatacttg gcttgatcat 300  
cggttctcca tgctgggttc ggtaacatct ggcgtgtatg cctaccaagc tactgctatt 360  
taaggatgct atattttgtg ccatggcaca ccac 394

<210> 8162  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-041-Q1-E1-E11  
  
<400> 8162

gtgaatcgga atagttgtat cgcgacctga atgaatgaaa taaacgaaat aacgctcttg 60



ttcaaccgtc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaagggg ccgcccacaa ggatcaaacc taacttaccg gggaaggaaa attaaaaacc 240  
 cttcaaaagg gccacacaaa ttaaattaaa gggccgtcgt ttaaaaaagt ccgaacggga 300  
 aaaacccggg ggtaacacaa ttaaaccccc ttgaaaaaaa accccttttc ccaagggggg 360  
 gaaaaaccaa aaaggcccca aacaattccc cttccaaaaa tttgccaaac cgaaaaggga 420  
 a 421

<210> 8163  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-E4  
 <400> 8163

gtcgatgggc tgcggtatat cgactcgtct aatccggtgg tctccgcggt ccatttggtg 60  
 gccgaaatgg ccaaaaccac tcccgctgcc gcgtcgggct cgccggcggc taaacgccgg 120  
 cagccgactt tgactttgac ccccggtggg ccctgggtga ctcccctgag tcaatgacag 180  
 gtggggccca gccctgttaa ttaaacagga ttagttttta ttaaatttta attaaaataa 240  
 tcaccctgac atgcgggacc cactgtcagg tttgaccag acctgttcag ttgaccactg 300  
 acgtcacact gacgtcaggc tgacgcagta attgattttc tggattttaa ttaaatcagg 360  
 aaattccaga atattattta aacttcaaaa attcataact tttaat 406

<210> 8164  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-041-Q1-E1-F1  
 <400> 8164

ggggccaggg gaagatgaag cttatgggga cgaccgcgct gattacagga aatctgaacc 60  
 cactacctac atcaatgctc ctttggttaag ggttcttgcc tacttcgttg gcaacccaaa 120  
 cccaggccat atcagacact gagcataagc actttgccat gtagacagag aagagtgaca 180

gaagctataa atacgtacac aggaagcaaa taggtttgtg attggatggc actacatgtt 240  
cataggagtg gattgcagag catgtgttct accaataatg acagcttatc tttcatgatt 300  
tttcttttgt ttgggtttgc actgaatttt gttttgtg 338

<210> 8165  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-F12  
<400> 8165

ggtcctaggt tcccgggtcg acgggggaac gatgagatca tggctagggg aacttttgcc 60  
aacattcgta ttgtgaacaa gttcttgaag ggagagggtg gcccccaaac catccatgta 120  
ccatcagggg agaagcttgc tgtttttgat gctgctatga gatacaagaa cgaagggcat 180  
gacactatca tcctggctgg tgctgagtat ggcagtggaa gctcaagggg ttgggctgcg 240  
aagggtccaa tgcttcaggg agtgaaggct gtgatagcca agagttttga gaggattcac 300  
cgtagcaatc tcgctggaat gggcatcgtc cctctatgct tcaaagctgg ggaggatgcc 360  
gacactcttg gcttaacagg ccatgagcgc tacaccatcc agcttccgac tgatgtgaat 420  
gaaatcaagc ctggccaaga tgttacggtc 450

<210> 8166  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-F2  
<400> 8166

tcatgggtcg acgggttcct tgaaaggaaa tgcttggatg agggctctga ttgcgacact 60  
atltcaagga tatgccagac gtacgacttg gacaagggtg atgtcctgaa gtacagggat 120  
ctggagtggc ctagctcagc ttctcgact acctagggat tctttgcca ccgatgtctg 180  
tacggtaaaa caactctact ggatgataac tgctggaggg tgatcaggct ggatcttttt 240  
tgcttgggac atggacattt aaccggcatg gcggatcatg cggtgcccgc attaactctgc 300  
cgctagctta gaaagctgag aaacgaagag gacctctgaa accgtagcaa ccccatatgg 360

tgacccccgt tgctctgtac ccagagtgtgta aatacagttt ggtg

404

<210> 8167

<211> 141

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G1

<400> 8167

cgggcattca aaactcgcaa tatcaaacat aaatggagac ttgatgccca atgatccgaa 60

aatggcggcc tatctcaatg ccgtccttaa aatgtcagct cggttcgtgg ggctggataa 120

ggttggaacc cttagagggg g 141

<210> 8168

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G11

<400> 8168

gggtcgatgg gattcccaaa agtgaatcgt agtattcgaa taaaattgga ggacagcaac 60

caggttcatg ggcagcagct ctgggagcac aacaacaatg tactgggcta ggaacgtcag 120

ccggaagtgc agccgccgat gcacggcggc aatggatttt tccaccccct tgatgctgct 180

ggtgaacgca cacttcacat aggggtaccct cctgagtcca tgagtaactc atgcatgaca 240

actttcatgc ccccggtggt gccttgattg aagactgcga ataaagtgcg acgaataagt 300

atatacgtgg caccgggccg gccgcataata tgcattgata ctacttcgag tgatggatta 360

ttccagtcaa gatcctcaat tattttg 387

<210> 8169

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-G4

<400> 8169

gtcgatgggc ttcccagaaa tgagtcgtat tagcgtcagg ttggcgggga ctaaagctgg 60

tagactgttt gaatggaagg ctctgtgctg caacaaaacc ttgccctagt agctatatgc 120  
aatgcttagc actgaactgc tgtgacaatg ttatgttacc gtaacatgtg tgggctatgt 180  
ctgcccattg tgttgtgcta ctactgtaaa ccaattgcgt ggttgcgtta gtttgccttg 240  
accattgctt gcatgcagct acaagttgct aatgaatacc ctactctaac ctccctttgt 300  
gagcgtggtg caggacattc tgccgataaa aaaaaaaaaa aaaaaaaaaa aaaaagaaaa 360  
agaaaaaaga gaaaaaaaac ccgaagaaaa aagga 395

<210> 8170  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-G9  
<400> 8170

ctcgcgggtc gacgggagge gtgaagtttg ctcatagtcg gttttctcaa cggcgggtccc 60  
acatgaaagt gaaaatgcta ggcaacacgc cttccctaag ctatgtgtcg tgccggacgg 120  
gccgtggagt actcccaatt cccgggctg tgggggggag tgcgacgcga acgcggcaag 180  
ccttttcctt ttactagcaa tgtgctcgtg tgttgcggcg gatccaaagt agtagaatag 240  
taatacttgt tcacaaactt gaaagaaatc actcttgttt tgatatactc ctaatatatt 300  
actccctcta ttctaaaaa aaatgtcttt ttagagatct caaatggact atcacatacg 360  
gtttatatgg acatatattg aagtgtggat tcactca 397

<210> 8171  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-041-Q1-E1-H1  
<400> 8171

attctagggg cgacgggatg ttcttaaaaa taagggtgaa tcttctagta agaaaaatgt 60  
ggatctcaaa tcaataagtg ttcattccaa ttgtctctct atcattaagg aaccttttgc 120  
tacaaatgaa tttctcaatt tcttgccctag gagtttaatc attgctaaaa agaaagaaac 180  
tcctaaaatt tataagtgtc ctgttgaaga atttaatgcc aaagatggca ctacttagat 240

ctgtttctcgc ttttatgcct agctaggggc gttaaagtat agcgctagtt gggaggcaac 300  
ccaattttat ttttgtttct tgctttttgc ttctgttttag taataaatat ttcactctacc 360  
ttctgttttag atgtgggttt atgtcctaata taatgtttgt gccca 404

<210> 8172  
<211> 133  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-H12

<400> 8172

gggatggggc gcggaagat cgaaatccag aggattgaga accagagcat cacgatgtga 60  
actttctcaa acgcattaac gggatcctca ttaaggcaag ggagatcaat cgtgcacggc 120  
gacactgaag tcg 133

<210> 8173  
<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-H2

<400> 8173

gtcgacgggc tcatcaagcc gccggtcgtg tcggcaaat acgcatcacc accaccaccc 60  
cagttccaag gatattaagc atggcatcat cgaaacatcg acgaggagcg accaattaag 120  
gtttaacaca acatcgctg cactatgcaca gatgtacctc attaatgttg aacgtgcatg 180  
catgcatgca tgcgtcgaga cttattatta attatgtgta tgtctgtgcg tatgtgogac 240  
tgcaaagtgt atgaaggga atagatgtta tctatgatgc cttttttttt gtttttggaa 300  
gtgggcaatt ttattaaagc atcaagcaac tttttttttt tggaaatgtg atccataatg 360  
ccgtatgttg tgcttttccc tttaggacaa atgtaattct ttcctt 406

<210> 8174  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-041-Q1-E1-H3

<400> 8174

ggtcgacggg ctcaacgaaa taatcaaata caagggattc caagtacctc ctgcggaact 60  
cgaagccctt ctcacacac acgccgaaat caaagatgct gctgtcgtat cgatgcaaga 120  
tgaacttact ggtgaagttc cagttgcatt cattgtgcgg attgaaggct ctgagatcag 180  
cgagagcgag atcaagtagt tcgttgcaaa agaggctggt ttctacaaga ggatccacaa 240  
agttttcttc gctgactcgg ttccgaagag tcctgctggc aagatcctca ggaaggacct 300  
gagagcaaag cttgctgcag gcatcccaag cagtgaagc acacagtcca aaagctgagt 360  
cgcatcttac acacacacac acacacacac acacacctct gtccaaaatc atg 413

<210> 8175

<211> 398

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-041-Q1-E1-H4

<400> 8175

ccaatgttcg aagggcgctg atgcaccgga tcgggtccgc gggctgggtc acgaccgtga 60  
cgcgacaatg acaggagctg cagcaactac ggcgatggtg ggcacacggc atgtcgcagc 120  
gggcgcggag gtccgtgatg acggcgagca ggcgacacat cacagcgctg ggcaaaggcg 180  
tggcacggca tggtagcatg gaggcgctgc acggcgatgg cggaggctgc ggcggctcgg 240  
tgtgacggcc atgtagcgat gacgagccgt atcaagacta cgggggaaat tgtagccat 300  
agtcttgatc ttgcatctgt tangggttgt tagttgcacg cgttgtgttt gttagcagct 360  
agctccatgc atggaaaaca gcaccgtcc aaaaccct 398

<210> 8176

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A10

<400> 8176

cgggcattcg ttcaccttga tttcgagtgt gaccacaagc cagagcactc gatcctcagc 60

aagcttccta gcagccagcc ttgattacca tccgaattca ctgtggaaaa cgcaagatgt 120  
 tggatatttt gcttgccgtg caggattcgc tacagtactt ggtgtcttgc attgttggcc 180  
 atctaaatga gataagcacc agcgttggag actgtataga cttgtttcgc ggagccctct 240  
 aaatgtcgtg tttcgagtaa aagtaggtta tttttgcttc ttgaagctgt cattgtttgt 300  
 ctgcatgag ggcgtcaatg tggaaatgtt agctacaaaa agaaagcaag cgatttttgt 360  
 gtgctcaaaa tcagttttgt gaactaaggt cgcaaggagc gagctagccc acccgggct 419

<210> 8177

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A11

<400> 8177

ttcgccgggc cacgggctac agccaacgtt gaaacgaggc gagcatcgag ggaaccatgg 60  
 agaacgtcgg ggaagcgatg tcgcgccatc tggcctcctc ttgcggtggg agaacgaata 120  
 ctctgtggc tctggctggc tctgcacct catgaacggc acaccatact cgatcgattc 180  
 gttatcctct ggggtgcttga ccttcgacct gtacgcccc cacctccgcc tgactatcgc 240  
 ctcggttgaa tctgtctgct ccatcgccca taggagatac tcgatgaact cggaggactg 300  
 caacgtgact gccgccgagg agtacatgta catcacccgt cctcatcgcc gccatctcgc 360  
 tctttcgcat acattgccac atggcccgcga cgtcctcga aatctccac tcattgtcaa 420  
 accaactaag gatctccttc aacctagcta ac 452

<210> 8178

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A12

<400> 8178

cacgggctct atgtgattca cttatatctt ttgagctaaa taattttgct ctagtgcttc 60  
 acttatatct tttagagcac ggtgggtggtt ttgttttata gaaattattg atctctcatg 120  
 cttcacttat attattttga gagtccttta gaacagcatg gtaatttgct ttggttataa 180

aattagtcct aatatgatag gcatccaaga tggatgtaat aaaaacttcc atataagtac 240  
attgaatact aagagaagtt tgatacttga taattgtttg agatatgaag atggtgatat 300  
tagagtcatg ctagttgagt agttgtgaat tttagaaata cttgttctaa agtttgtgat 360  
tcccgtagca tgcacgtttg gtgaaacggt atgtgatgaa gtcggagcat g 411

<210> 8179  
<211> 342  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-042-Q1-E1-A3  
<400> 8179

tgcacgaagc gaattcccg tccaagggc cacttcggtt gtacgtgacc gaaggtaatc 60  
acaaacgggt gtcgtgcccc gatcagccga ttcgggaaca cgactctgtt gatccgtgct 120  
tgtcgcacga tcagtagcag gcacgtacta tatatatgtc gtacgtttgg tcatattgag 180  
tgatgaaatg tatttacggt tgtcggtggt cgggtgtcta actaacaaaa tgtatgtttg 240  
actctctgaa atgagtaagg agatccattg taatccaaat acagataaag ctattcgggt 300  
cgagaaaaaa aaaannaaaa aaaaaaaaaa aaaagcggcc gc 342

<210> 8180  
<211> 278  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-042-Q1-E1-A4  
<400> 8180

gggtcgaccg gtggactaaa ggataaggag tggaaagaga ctaagctggg ggatgccaaa 60  
ggaacccaag attatattaa aggataacca aaagcctaaa ccttggggat cccccggttg 120  
gaaccccccc ttctctctcc gtcaaccgga aacttaactt gggccaaaat tttaatccac 180  
aaaattaaaa gtggtttaac ttgggcaaca atttcccctg gtccgaattg ccttgcggtg 240  
attaaaataa aggtttttgca ccttaatttc cattaaaa 278

<210> 8181  
<211> 428



<212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-A5

<400> 8181

gtcaacgagc ggtacagaga atattgcttc gattcattcg tatcccagaa aacatcacac 60  
 tctctcgctc gagagcaaga acaccagata atacaaccag acaagcagca gtaggagtgt 120  
 tatctctccg gagagctccg aagctgggta aactgctcgt gtgcctcgcc ttgatctgct 180  
 cttcgtgcga cctccgcccc ccgccgaacc gaaagggggc cggtcgcgcg gccccatagg 240  
 tgttcgcgga tcagtttccc cgacaaagta tgtgagttct ttattactaa tgtttagtcc 300  
 atatattata cacactetca accttccacc attgctagcc tctctagtat cgcgcaactt 360  
 tcgccggtac cgttacacca ctttatacct tcctcanaac agccacaata ctttactact 420  
 atgcattt 428

<210> 8182  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A7

<400> 8182

gggtcgacgg gcatggccat agctcctgct gaaacatggg cagtacggaa agcctgctga 60  
 aattgatccc atgtgacagt gtctactgga tatgtggctg tgaaattctc ccaccatgat 120  
 gttgcgggtc cttcaagctg atgtgcggct aatcgcacct tctctgcatc tgtgcatcct 180  
 gcagtgggtca actccctagc tgtcttgcca agccaatcat ctgcaacaat cggctcagtg 240  
 ctaccggaga acaccggcgg attcagccta agaaaacggg ttaagtgatc aacagggtgg 300  
 ggtgggtggg ggttggtgtt gttgttcccc tgattctaatt tttggactag caactgcatc 360  
 aaggcattct gctactggat caactgagtg agctcctggg gggaaaagaa atc 413

<210> 8183  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-A8

<400> 8183

cggacgtaac taggacttta gaggcattct ctctaacacc tcacatgtgc tgatgcaggg 60  
agagatggcg gagegtccgc tgggtggctat catggtgagc tgggtgtgcta ccacctcgcc 120  
cacggccgca ggtagcctcc tccccggcat ccattgtcat gaaccaggac tgaatttgag 180  
taattagata caattctcag acgctacgat ttggaggaga aactcgagct cgagtccttg 240  
gagcaagagg aaggaagaaa tgagacaggg tctcgttaca ttctcgatac cgagtcagac 300  
gggagctcat atacggcgct ctaggcgccc gtttggaag tggcgctcac gcagccgca 360  
atttgcgcgc gcccaacg 378

<210> 8184

<211> 341

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B1

<400> 8184

caacatgaac ggatacctca gctacctgtc cctcgagtat gacttcgtct cggacacaaa 60  
tcctgcttgg gtatcttcat tttggaagca ggaatccttt cctcataaga tggatgacct 120  
gtagtattag gaattcatgc cttccagctc taattttttc gcattgttgg tgtatgctgg 180  
gagtcacatt attatgctgc tagcaaacag taggattgga agtcttactc tgtagggttag 240  
taatatcttt tccactatac cgaggttcag caatttaatt cgtattaagg tcacacaagc 300  
agtttggttt tcagatttgt cttgacaaac atatttggtt c 341

<210> 8185

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B10

<400> 8185

ggggatcaac gtacagcagc aactcctggc cgcagcccaa gtccctccgc atgtacgcag 60  
ttctaagacc tcatttctct cacttctcaa cacctctccc tcgggaacaa tagccgccgc 120

gggcgcacatc gcagcagcgg tatcctcacc aggagatcga tatgggtgttt gtgtctatcc 180  
 aaaaaattag ggcctactcc aagcgggtcc aagtgcggtt caggagatgg agacagggga 240  
 ctaccgatta cagggccagg ctccaggtca tcaatcaaga caacagcagg tataacagat 300  
 ccaagtatcg gtttgttgta ctatttacta acaaagatgt cactgcccga attgtgtaca 360  
 ctaccattgc tggcgatatc gtgatggctg ctgcctattc ccatgagctt c 411

<210> 8186  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B12

<400> 8186

cgggtgcacc atgatggat gagatagtc ttggttgatt tatagaatgc tcattgcact 60  
 tcacttatat cttttgagta tggctttata gaatgcttca tatgcttcac ttatatcatt 120  
 tgaagtttgg attgcctctt tctcttcaca tagaaaaccg ccatttatag aatgctcttt 180  
 tgcttcactt atatttgta gagaatgggc atatcttttg tagaaagaat taaactctct 240  
 tgcttcactt atatctattt agagagatga caggaattgg tcattcacat ggtagtcat 300  
 aaaatcctac ataaacttgt agatcgctga atatgatatg ttgattcct tgaaatagtt 360  
 ttgcgatata aagggtgtga tattagagtc atgctagtgg acgactat 408

<210> 8187  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-B2

<400> 8187

gggtcgaccg gtggtcgta gtacaactat ggctattatc tagcggatgt catctatcaa 60  
 aagtggaaaa ccttcgtaaa ccaattgaaa aacccttaag gtaaaaaaat tcttgatttc 120  
 aacaatgcta aggcggcggc aaaaaaaaat ttggagaaag cattttggat ttgcaagcc 180  
 caatttgcta ttgtgagagg accggctaga ttttgggatc aaaaaatgcc ctggtacatc 240  
 atgtacgctt gtgtgatcat gcacaacatg atcatcgaga atgagcgtgg ccaagagatt 300

tagactactc acagtatgag ctcttgggac atcccgtgcg agtgcgacgg agggctgaag 360  
 ggtancccg tttgttgctt cctatcatgc cattcggtgt cccgcaacgc 410

<210> 8188  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-B3  
 <400> 8188

cgtgcacaaa taaatatgtc atgtgaaaat ttggaaaatt tcaggggtca tttgacctat 60  
 taaagacatt tacgtgattt tctaaccatt taatgaccgt aattcaaatt taaactacat 120  
 ctacatgcaa cgcctaacca taacggtttg aaaaagctta tttttacgta cttgtgcgcg 180  
 agttaattcc atgtgcagca aattaaagg gattttcaaa catgttggtc tcaaagcatg 240  
 ggcacatgca tacgtatggc tggagtgaca tggcatatta attcaaaaaa aataaaacat 300  
 gatcaaaaaa acttgaaacc ttgcttgatt taatgtcatg ccaccaagat gatgtggtaa 360  
 agaaattggc atgtttgacg aacgtttggg cacacaaccc tcacaaaccg gagca 415

<210> 8189  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-B4  
 <400> 8189

cggtcgaccg gatgccggat acatcatcat cggtaacatc ggtgaccatt ggagcgacat 60  
 ccttggcgcg cctgagggcg cccgcacttt caagctgccg gaccccatgt acaacatcgg 120  
 ctaggccact cgggcttggg catgccgcca ttgagttctc gaataagctg gacgctctta 180  
 gttatatgca tgtttagtca ataatccctc cccagttggt gcttggttca tttccattgt 240  
 tgagaacttg agattaattg ccattatagg atgtgttcat ggagaagttg catgttgctt 300  
 aatctatgga tccacggtcc actatttttc ttcttgcgag aaaagtcag caacaaaaag 360  
 gatgtgcgaa ataaattggc atgt 384

<210> 8190  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B5

<400> 8190

```

gggccgacga cgacctctag ggcccacaga gagagtcaca catgagtgtg tgtcatagga 60
caaaaccacc gcggtgtatgt gcccgtgtgt tatgtgatgt ttgaatacc aatgcacaac 120
ttaaactggt cacatgcttc acaaaccgga aacgcactac accatgatgc gtatctccct 180
cacttcaagc cgggtgggaga gcctcatgtg tacgcacgtg cccgaacttt aatatggaat 240
ctcaccatga tccacaccac acgcatgcc aagatgaatcc accttttggg caaatgcctc 300
tcgttgtcgg tggaaactac aaacctttgc gggctaacga atgggcacgt cgctgatacc 360
gca 363
  
```

<210> 8191  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B6

<400> 8191

```

attcgccggt cgacgtggag gcgtactggc cggggaggcg tggtaaacc cgggagtgtt 60
acgcctctct taagacggat caccatcgcc ttatggagaa agcattcaga cccttcatct 120
ttgccatcct ctttgcaatc ggctcctcca agaaactttc cccccctcct cctgtagaaa 180
cccagctagc tagctagcta gcgtgcgtac gtctccggcc ccaacattca ttccatgtga 240
gcacattata ttatattgga ggctcctttt tttcttgggt tgattatttt tgtaaactca 300
cattcacata tcacgattgg atcgagtcgg atttctaaaa aaaaaaatg caagtcacac 360
acaccacaca aatga 375
  
```

<210> 8192  
 <211> 151  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-B9

<400> 8192

ggggatcaaa gtaccgcagc aaaccctaac cgcagcccaa gtccctccgc aacgacgccg 60  
ttccaaaacc ctcccttctc ccacttctcc acccctctcc ctcggaaga aaagccgccg 120  
ccgcgcgcatc cgcagcagcc gcatccgcag c 151

<210> 8193

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-C10

<400> 8193

cgggagaaga ggtcataggg tacctagggt ttatgacgtc tcgttgtttt tgcaagctag 60  
catgtgactc cgggatgcct gttttaagat ttcgcttggt ttgaaagata ttattattta 120  
ctgctttag cctacctggg ataccatcat attttgetga ttatggaact acttttatcc 180  
tgcttaagtt ctgtattttg cccgatttga aataaaaaaa aaaaaataaa aaacaaaaaa 240  
gaaaaggtaa aaaacaaaaa atcgaaaaaa attcaaaaaa aaacaaatac agaaaaaaa 300  
aataataaat catcaacaga aaaaatccgg gccacccaaa gggttcaaac cttacttacg 360  
cttgaaagcg acttcaa 377

<210> 8194

<211> 410

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-042-Q1-E1-C11

<400> 8194

cacggggggg aagaacacgg caggtcgggg tcgtggcggt aggcgccagc gcccgtcagg 60  
cagctgttct ggaaggtag ggcacccgtg ctacggctga agcggcgac tgcgagtttc 120  
gggtataaac gctaaagcta taccagaact tcaacgacag tctcgtcact gccaacgcc 180  
tctagctatc cacacccgca ggccgcatgg tcttgttct cgtcttcgca attttttact 240  
tgccgcacgg tcggaccact gcatgaggct ggacattttg aagcgtgtcc acaacttctg 300

atatgtctct cgatctcagc taccagtgtt cgagtattag attgtactgt tcgtacacaa 360  
 cttgcatagt gtacanaatg acacagtgtataataatgtac ctccatcctt 410

<210> 8195  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-C12  
 <400> 8195

taccggatcg aaattcgcgg ggtcacggga agtgtcaccg gactcaagga agggctccac 60  
 ggcttccatg tgcacgctct tggcgacacc accaatggct gcatgtcaac tggaccacac 120  
 ttcaaccccg ctgggtcatgt gcatggggca cctgaagatg aaatccgcca tgctggtgat 180  
 cttggaaatg tgacagctgg agtggatggt gttgctagca tcaatattac tgactgcat 240  
 atccccctta ctggacaaaa ttcaattggt ggccgtgctg ttgtcgtcca tggtgacgct 300  
 gatgatcttg gcaaggggtg acatgagctg agcaagagca ctggaaacgc tggtgacgct 360  
 gttgcttgcg gaatcatcgg gctccagggc taagatgtca tcttcgccga ccaacgtcgt 420  
 acagatatgg gaaccttt 438

<210> 8196  
 <211> 335  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-C2  
 <400> 8196

ggctgataag gagaagaggc accgcacgct tcagtggatc aagggaagg tgcaaaaaag 60  
 aatacagggc ggccccgccg gcgacgacgc gactgccggg tattgattag ccaggccccg 120  
 ttccccggcg gcggatggaa atggatgcat ggatgtccgg tcgattgact gggcgatctc 180  
 ttgtttcctg tcgtttaaat ggttctgtac atacaggttt gccgtttgat tcacggttga 240  
 caccaccacg tagatcatct agcgttcaga tctctgctta ttgattggtt ctttgtacaa 300  
 aatataanan taaaatctgt aaaaaaaagc ggccg 335

<210> 8197  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-C4  
  
 <400> 8197  
  
 acggaaagca caggaagaaa ccctccgtgc gttcgcgaca acggattctt ggtcaaccgg 60  
 gaaacccacc acttcggtta acaattaggc ggtaatacca taccagacag aaaaattgag 120  
 agtgcattgt gtgctacctt tattttttca tttcgttttg gcgaaaataa tggaatgcgg 180  
 taaggggttg gttccaggtc ccggtattag aaattcattg tagggcatca tgcctcatta 240  
 attgtgaatt gtgatcactc attttgaata acagaattca ttccaaaaaa aaaaacgaaa 300  
 aaagaaaaag acgcaaaaaa aaaggaggaa gag 333

<210> 8198  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-C6  
  
 <400> 8198  
  
 attcgccggt cgacggggat gataacatcg tggaccatcg actagatcat aaaggccagt 60  
 atttgcttcg tgttgacatg aagagtaacg agatccagat ctctccacag cctacaaggc 120  
 gtatttggtta ccaactcttt gccagcgagt tcagtgcgta ccgacagcat ttacaggatt 180  
 gaccgaagag agatagaagc aagagagttc ggtgcgagt gaaagacggt gaagatttga 240  
 gatgttggca acataacatg tggaactggt acttaaagtc cactggagac atttactggt 300  
 gtcattatct gatgttagta gttataaact gaatggtggg tagtatgtgt tttcactcat 360  
 ggctttatgt ctactgagt gcttgttttg gatttgtaac tggtaatggc atgtttactt 420  
 ttgtgactgc tg 432

<210> 8199  
 <211> 131  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-C8



<400> 8199

ttcgcggggtc gacgggtggt actatgctgc atgttgacag actttacctt caaatgaaga 60  
taatacttgt tttcgccttg tactttttgc cagcatcaat cagttaatta tcagagatac 120  
atgttcagct t 131

<210> 8200

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-C9

<400> 8200

gggagccttc aaatctcccc ttctatatca ccggtccggc ggagtgcgag tcccaccggg 60  
actggtgtgc ccgccatggg aatgagagga tgagggcaga caaggcccg ctcgctaccg 120  
gcatggcggc ggcagaggcg gctgatacag cggcacgggc ggccgcataa gaacgagcac 180  
gcctcgcccc agagcagaat cgagtgggcc gtgccatggc cggactgcca cccaagaacg 240  
agaaggtgga cagcgacggg tcggacagct tcggcaacga gcagatccgg ctaaaccgt 300  
actgagtctt cgactggtac ttccgcgaga aagacggcaa tggcgcgtat ccgggaaggg 360  
caagggcacc cgtggatgat cttctccgcc atagccgaac atgccaaatt ttggtagtcc 420  
aatggaatgt tg 432

<210> 8201

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-D1

<400> 8201

gggtcgcccg ggaagttgac cctagtcccc gctgaagaat gtatttagtc atttagtgtc 60  
gatgcaaggc agtaaccatt tcttgtcttc atcctcgat tgtatagcat atagaggtag 120  
aagggagaga gagagagaga gagagagaga gttacactgt aacaacatac atttgggtag 180  
ctatctatca gggcgccggc acgtagtcac actgcatgga tagggacgtg cgttagcat 240  
ccaggagaag ttgttttcag cataaaaaata ttcagtctaa caccgatgac cagacaaca 300

atgtccttct cttcttcccc tacttctctt gggcgctcatc atcggcgggct ggcgagcacg 360  
gctgagtgat atatggtcac gggctcacgg cctagttgtt gaacttgagg catgggcggg 420

<210> 8202  
<211> 434  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-042-Q1-E1-D10

<400> 8202

cgggcgggtgc tgaagtgcc ggagaagaag atgatccagc aggtggtgtt cgccagctac 60  
gggaacccgc tggggatctg cggcaactac acgtttggca actgccacac gcccaaggcc 120  
aaggagattg tggagaaggc gtgcgtgggg aagaggagct gcggtgctggc cgtgtcgcac 180  
gaggtgtacg gcggggacct caactgccc ggcaccacgg ccacgctggc cgtgcaggca 240  
aagtgttcca agaggcagag gaccgccgag caataagtaa cctaagctca catatgtact 300  
gctatgtaga tgatctcatc accttgacct tttgcctttt tcatgcttgt tctttgggat 360  
gcgtgcatac gtgttgact caggttggtg attcctgtga attgttctan gagtagatgg 420  
agcgctgaga tgag 434

<210> 8203  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-D11

<400> 8203

ccacggggga aaaaggattc atggtctggt tcatctcact cctcagctgc ggaaagaaca 60  
ctgccattcc aggtaaaagg tggggaatgg gaaattgaca agcggcttct gaagatggga 120  
gagatgattg cttctggttc ttgtggagac ttgttccatg ggacttactt tggcgaggat 180  
gttgctgtta aagttctaaa agccgagcat ttgaataata atgtttggaa cgagtttaca 240  
caagaagtat atattctaag ggaagttcat cataccaatg ttgtgcgatt cattggtgca 300  
tgcacaaaac caccaaaatt ttgcataatt acagaataca tgtctggagg aagtctgtat 360

gattatgtgc acaagcagcg taatgtcggt gatctcccaa ctctgctgaa gtttgcattgt 420  
gatatatgcc gaaggatgtg ttac 444

<210> 8204  
<211> 305  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-042-Q1-E1-D2

<400> 8204

ccggtcgacc ggtggtctaa gaaatacatc atangcggca atgtgataaa gcatcagtat 60  
attagaaata atacagaatt aaaaatttta acttgatata cgaactacaa atttaaagaa 120  
ctactaaaga gccgcccggg ttaataaaac tgagaaaatt aactcggaaa gaaatttttt 180  
ggaagctccg ttgctgggatt cagacctaac cattcaagga gaagcagtgga gaacgacaga 240  
acctatgatt ccatangatt ttattgacaa gaatcctaac acttcattgg gtgggatggc 300  
ggaac 305

<210> 8205  
<211> 315  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-D3

<400> 8205

aatttggtta tccatcaata tctgcagaat ggtgttgact tatacttttt aacttgtcac 60  
tctagcttgg gatttagagg aattatgaag ggccgcccgg gttaagagaa ctgataatat 120  
tgactcggaa tgaatttttt ttgcaactcg gttgggggat tcatacttca ccattcaggg 180  
agaatcagtc gtatgtatag aagctattat tcaatagggt tttattggga agactccttg 240  
tacttcattg tgcaggagac cgggctgcaa cttaagcagt gtcttaattg gttcatgaac 300  
cagtgtacgc ggaac 315

<210> 8206  
<211> 429  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-D5

<400> 8206

cggggtatatg aacagtgtta atgaagcatt tgaaaaatat taaatgtgta tagaaaaaat 60  
gttggtccaca tattaataag atgttaatct tgtattggaa aatgtcaa atgcatttg 120  
aaaatgttaa atgtgtataa aaaatgttga ccatgtat tt aaagaatgtc aatcgtgtat 180  
ttcgaaaatg ttaatcatgc tttagaaaat gttaaccgtg ttagtaaaaa atgttgaaca 240  
tttataaata aaatgcta atctgtat tt agaagtgtta acaaggcatt tgaaaaatgc 300  
taa atgtgta tagaaaaaat gttggccgtg ttttcgaaaa aatgttaatt ttctcttcaa 360  
aaatagttaa acatatat tt aaaaaatgt attagatatg taccaaaaac ctacaatgtg 420  
taaggaaaa 429

<210> 8207

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-D7

<400> 8207

attcgcggggt cgacagcgag agcaa atgtt tgacggaaac gatgtgtcag atggcatggg 60  
cttcggaatg ctaaccgagg gtgagagatc cttggtcgag cgcgtagaggc aagagctgaa 120  
gcatgagctt aaacaggggt acagagaaaa gcttgtggac atcagggagg agatactgcg 180  
gaagcggaga gccggtgagc tcccaggaga cacggcgtcc actctgaagg cgtggtggca 240  
agcccacgcc aaatggccgt acccaactga ggaggacaag gcgcggctgg tgcaggagac 300  
ggggctgcag ctgaagcaga taaacaactg gttcatcaac cagcgcaagc ggaactggca 360  
cagcaaccct acctcgctct cgtcggacaa gagcaagaga aaaaggaaca atgc 414

<210> 8208

<211> 426

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-042-Q1-E1-D8

<400> 8208

attcgcgggt cgacgggtga tccgaatgat gattgtgata tcaagattag gaggggtgaat 60  
gttagagcta atcttgatat ttgtattagc atgtttgagt tttgcatgta gtctagtcta 120  
gtgtggtggt cgtccgacga aggtttcagg tgagcgcgcc aaggaggtga gatgccagga 180  
tgccgtgtga ggcggcgagc acggcgagat gccgatggtg ctgcgtgaga agcggcaaga 240  
cgtatcagag gctggagccg tgatggactg catcaaattg ggtcgggtga accggccggt 300  
cgttctgttt gttggactag ctgttcatgc gtgagttcgt ttagtcctag ctgagagtat 360  
cgttgctagt agttgatgca tgcattgata anaaaaaaaa aaaaaaaaaa aaaaaaaaaac 420  
cggccg 426

<210> 8209

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-042-Q1-E1-E1

<400> 8209

gatgtccaat gaaccgacga cgcaaagagg aacgtgccgc cgcacgtctt ggctaaacgg 60  
cgccgaggct ccccggaagg tcgacggcgg cctactccat gtgcaccggc aaagggagga 120  
cgctcaaagg gcgggacctt cgcaacatca ngaacctcgt cctcaagatg accggattca 180  
tcgagaaatg aaatggactc aacaccgtgg gatgtggata cattgcttcg tcgtccatgg 240  
acgtgtgtga aagtttgtgg caacctaat aaagttttca gtgagcgcag aggtgaagaa 300  
agataagaga ttagtaata actctctgtt taattaatta aatttgtctg ttagtcgaa 360  
ttttgcatgt gtantgtgcg agcagcttgc tcaagaataa atg 403

<210> 8210

<211> 140

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-E10

<400> 8210

taccggacct acattcgccg gtccacgggg agaagggacc gttgtgtcca tcgaccagga 60

tgatccactg agtttacaaa ccgtttgtcc ctatttggtt gcaccaacca ttgtcgggaa 120  
 ttttgtgtta acaatgggcc 140

<210> 8211  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-E11

<400> 8211

cgggggcgctc gcattttaaa atctgataaa ttcaagtccc tttttgattt cttagacgtt 60  
 ggcaggactt gcaagccaga aacctacaga ctggttaagga cataccccag gcgtgctttt 120  
 accactgctg acggcgacca atcgtttact gatctcgggt taacaagcaa gcaggaagcc 180  
 ttatttatag agcagattac tgattagggg aaaaagattg agcctcacct agggatacca 240  
 ccatctgaga ctgagttggg gttttacatg tctatacttg catatggctt ttactagga 300  
 atctaaaatt ggtctgtgtc gaagagttca aactgcgttc ttttgtgatg tggaacgggt 360  
 cgcatacctt tagtcttatg taggggggtat aaaacagtga tcagcaacgg attcaggata 420  
 tttggttatg aatg 434

<210> 8212  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-E5

<400> 8212

gacggggagt gcaacgaagg tgccatggcc gccatagccc agtctgcgcc ggattctgtg 60  
 ctgatgacat tggcggagtt tgagacggca agacaggcgt ggaatgcact caaagagatg 120  
 aggattgaat aaaatcgtgt cacgaaggct cgggcacaag tgctgaagcg ccaatttcac 180  
 aagttgcaga tggagaaaac tgaatcgggtg aacgactatg ccatgcgtct gactactttg 240  
 gtgggagaga tccacgcgtt tgggtcanag ctgcagcaga ccgagattgt ggagaagttt 300  
 ttcagtccgg tgactgatan attcacgtac atcatcggca cgctcgaac 349

<210> 8213  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-E6

<400> 8213

```
tcgacgggaa ggcgccgttt gcgaggctga tgctgcaggg gaactacctc tgcggagccc 60
tgccgcgtga gctgaggcag atgaaggagg gcggtgttat ggtgagcctg gcggacaact 120
gcttgctcaa gtgcccgcac aagttcttct tctgccaggg gccgccgcag aagaaccgtg 180
acacatgtcc caagtgcgaa ccatgagagg ttccatactg tagataacgc attcatgtcg 240
tataccttaa tttcatcggt tactgtatct catcggttac tgtccggatg atgaacttta 300
ttgatcgaat aatactacat aactttgctt gaacgcgggt aacatgccaa aagtggattg 360
ct 362
```

<210> 8214  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-E9

<400> 8214

```
cggggcgtag tgaatgagat gtgctgccat acattgtatt agctcggaga gagcaaatgg 60
atcggtatga cttttgtgtg atgagtgtaa ttaagctgtg accaatatgt acacggccgc 120
atgttgcggt gcgtgggtgc tgctgccggt cttgtgtact ccattgttgt gctgtgatca 180
ttcctttgaa taaatcggtc cgatcttcac tttaaaaaaa aaaaaaaaga agaaaaaaa 240
aaaaaacaaa aatcagtata ccggacttaa tcagacatcc aataacatta atcggccctc 300
caagaggatc aaagctaaca tactccggca agctaggtca aagctctcct aaa 353
```

<210> 8215  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-F1

<400> 8215

tctgaagatt tacctgaaca gaacacacaa gatcttaagc cagcaccggg ggacaacata 60  
 tcttctagaa agcccatggt tgaagaaaag ttgaataaag gagatacaca gcctactgat 120  
 atgtcaggcg cgctctccct ctccctcgca tttccagcat caaaggatca ataggctggt 180  
 aaaatgcaac cggaatcgca aagaagcatg agatgagcag tangaatata ccgtcttcga 240  
 ttatccagtg atgatggctc ctgaccttg cattcctgat gtcttgctg atgcaacctt 300  
 gtagcatcaa cccactgcac aaggagtctg cctaaaacac aactatcttg tcaatg 356

<210> 8216

<211> 384

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-F10

<400> 8216

tccacggggt ccaattgatg cgggcccaac gtttggtact agctgaatct caggtcacac 60  
 atataaatat cagttccaag ggacggcttc aatgcaccaa accaccatgt actcctacat 120  
 ggctctgcaa cgatagcttt accacaacgt cttcaatacc tcaactctcat taacgacaca 180  
 tgctttcagt ccaattgagg accctgatga atcagagctt atacgattct aatcgttgca 240  
 agcataacat tttaggaata cagtatggct cagacagctc ctacacatgc tagtgcgttt 300  
 catcgactta ctgtggcaat gacaagtcac gcataagaaa gtgggtttaa ctaccgcagt 360  
 atacactaat ttgaatcgca ttgt 384

<210> 8217

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-F11

<400> 8217

taccggatcg aaattcgcg cggccacggg gacacgcaa gtgggcaaag tcaccagaca 60  
 acgcaggcca ctataattct gaaccaaaca aactggatt tttctgtgat ggaggagatt 120  
 atgatagcta ttatggccgg ttctttctca actggatatgc ccaggtgttg ctggatcatg 180



cagaccgcgt gctgatgcta gccaggttgg cctttgaagg ctcagctatt gctgtcaagg 240  
 tgctcaggcat aactggtgg tacaaaactg ccagtcatgc tgctgagctg actgctgggt 300  
 tctacaaccc atgtaaccgc gatggctatg ctccaattgc ccaagtattg aaaaagcatg 360  
 gtgcggcttt gaacttcacc tgcgtcgaac tgcgcaccat ggattagcat gaggtgtacc 420  
 ccgaggcctt ggcagatcca gagggcttgg tatggcaagt gctg 464

<210> 8218  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-F12  
 <400> 8218

cctatgaaa aaaagggatg aaggagatc tgaaattgct tctattctga tggatattga 60  
 aggtatctcc ggaggctttc atagcttcaa tgtggctaata gtaaggcaag aggctaaaat 120  
 ggcacatctt tgtgccggtc gagctagtcg tactagaaga agctgcttgt ggattaattt 180  
 tattectagc tttctcacat ctttgtgcta tcttttctgc caacatttct aatcagttgt 240  
 attgagctat ataaaaggac tattcttgag tgtgataaat acatgatgca ttgcttttgc 300  
 aggggtaaag acttggaata gaaaaatccc tcccttgga gcttggggcc tcatttgtaa 360  
 acccaaatat caaggatggg tttttgcatt tcaaactttg aggctcagaa tgatgctttg 420  
 ctat 464

<210> 8219  
 <211> 221  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-F2  
 <400> 8219

cgggtcgacc ggcggcaaga cgcaccgcaa gcagctggcc accaaggcgg cgaaggaatc 60  
 cgcccccaac aacgggcggc ttgaagaacc ccaacggcaa aaggcccgga accgtggccc 120  
 tgcgtgagat ccgcaggtac cagaagagca cggagctgct catccgcaac cggccgtcca 180  
 agccctgat gcgggagatc cccaggaact tcaagacgga c 221

<210> 8220  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-F4  
  
 <400> 8220

```

gggtcgaccg ggagcatgat gtagccactg acaccacggt gctggagctc ctcaagggcc 60
tgcagtttca tcaggctcct cgcctacgtc gccaacctct tcttcaagct caagacgcat 120
cgccagctct tcgagccgca ggaaattgag ggcggcaatg atgataagga aaaggcggtc 180
ctcggttttg ggagcgcgct cttctggctc atcctcatga ccatcataat cgccgtgctc 240
tccgagtact ttgtcggaac catcaagccg acctcgcatt cgtgggggtct ctcggttaagc 300
ttcatcagca tcattctgct ccccatcggt ggtaacgcgg cggagcacgc cggagccgtg 360
atcttcgccc tgaagaacaa gctgggcata a 391
  
```

<210> 8221  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-F5  
  
 <400> 8221

```

ggcaagataa cacgcaggag ccgagtcaat gtcagtgtcg ggagcgcctt atacatatte 60
gggggagatt tgccctacga cactgttgct cattggaaca aggagcaaca cctgggttagc 120
caacggtgac aaggctcagat gatcctttta tagagcatgt tcaaaagttc agggctcatg 180
tgggatgccc acctgaccat acgtcagggt atcaaccttt gatgtttgcg ggacattgta 240
gtgtgaacat tgtgtgtgtc ctgtataaca tgtctaagct gaaacgggtc tctgaaatcg 300
atgtggtata ggaccatgcg gtagccatcc agagttcttc acattctgat cgtagtg 357
  
```

<210> 8222  
 <211> 261  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-F7

<400> 8222

tcaacggtaa cgctgccaaa acaccacaga agacggggccc gttccaattg cgaatgttgg 60  
aaaagaataa gaaatttagct acaagaaagg aaggggaaaat tccaaccaag actcccccg 120  
ccttaaggtt ttaaaacaag cccgttaaca ttgggaattt ccaagatttc aacaaatccg 180  
gttggaacc ttccccgaa ccttccaagt ttccccgaa cgggtcaac caccattcca 240  
ttgcgccaac cttttgcaa a 261

<210> 8223

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-042-Q1-E1-F9

<400> 8223

ccacgggagg tgtttcatct tctaattggag gttccagaaa cttctagagc cttccacaac 60  
cctccagagg ttttctaggg ttgtcctaaa ctttttgat ctcgctttt tctcggtttc 120  
cttcataaca ttttcttttc ttccaaaact tttctggtgc aattcacata agctcttgca 180  
cttctagtac tcaacaaatc gatgatcctt aagcgtgtgt cctggcaggt tcggtaaatg 240  
tagacaagac ccggaacacc ttccggtcaa tggccaatag cagaactgtg gacatccata 300  
ttgtcccccc tacacttaca cgaattatta tcgagtgaac ctattgttct gacacacaat 360  
tccctttatt tcacaatata acataatcaa aggtgatact tattggtatc catgtgaagc 420  
aactcatgat canncatac 439

<210> 8224

<211> 181

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-G1

<400> 8224

cggtcgaccg ggatcaatca ttcataagca aagagtagaa taatcctaag gaccaagtaa 60  
ggcgaatcca acctccaaac ctggggagcc ggtggatctt ttttgcaaaa tgaaagcaaa 120

cttgtccaac aaaaaaaaaag ataaaaaaaaac gtaaaaaaaaa acgggcgggtc caaaagattc 180  
a 181

<210> 8225  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-042-Q1-E1-G10  
  
<400> 8225

attcgccggt cgacgggaaa tcacaaaagc gtttttttga tctgaatttt ttacaaaata 60  
ttgatataga aattgcctag gttttcctaa gttttcaaaa aaattggagt tacagaagta 120  
tacaaaattt tcagattact acagactggt ctgtttttga cagattctgt tttctatgtg 180  
tcatttgctt attttgatga atctatcggg agtatcgggg ggtatgaacc atggagaact 240  
tggaatacag taggtataac acaaattaat ataaatttag aatgatttca caacagtacc 300  
taaagtgggtg atttatttta ttatactaac ggatcttacg agttttctgt tgagttttgt 360  
gttgtgaagt tttcaagttt tgggtaaagt tctgatggac cacgaaataa ggagtggcaa 420  
gagcctaata ttggggatgc cca 443

<210> 8226  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-042-Q1-E1-G11  
  
<400> 8226

ccacgggggag gtgacggtgg ctacgggttt cacggcggtg cgggcgcggc tgcacggcc 60  
atggtgggag aaggcgaggg agaggaccag ggggagaaaag gaggtgtcag caaggtcggg 120  
gcgacatcca ggaagcgatc cacgtggcgg gacgggtgtct agggcatagt agagaggcgg 180  
ggtggtgctg ggcgagctca ggcgcgccgg tgetcacctc cctgcctgcc tggcgggagg 240  
aagcagctga ctggcgtggg ccagcgcaat gctgggacgc caggtgggct cccaggtaag 300  
tttcctctc tctcagtttt ctgttaatgt ttttctattt ttctgtaact tctgggcttt 360  
attaaaaata ccaaacggtt ttcaaaaatc ctgaaaataa ttgttggtc tg 412

<210> 8227  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-G12  
  
 <400> 8227

gggattgata gaattttcac agttacacca gcatattgct tggggtagaa tcagttattt 60  
 gtaggcacag gtaagggaac tcaccgagag ataaacaatg tattcctaag gtcctcacga 120  
 ttcattacag ttactttggt aacttgcaat gttaatcatg tgtatgtgca tgatattcaca 180  
 tatcatctga ataatatcga tcagagtctt atgttatgca gaccattcaca gtgcaggata 240  
 aatgatcaag ttgggtcaaac taccaagaaa atatttcagc tatccacaaa tgaaatatca 300  
 tggaggataa atatctatgt gagggagtgc gaatgattgg aatcttcata acaaggtaac 360  
 agaaaatcca ttaatatagg caactggtag aatttggtgg gtgtgcccgg tcagtctact 420  
 ttcccatgtg ttttacct 438

<210> 8228  
 <211> 292  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-G2  
  
 <400> 8228

gcaaggtgag aatagaagtt ggtggatagg ggttgaatgg agacgcttaa gaagcggcgg 60  
 ggagccctgc tagagccccg gaggtgacaa agacgcagag ttccggcagg ggtgtggtgt 120  
 tgtggccggg gtggtggagc ggcagcgaag gcaagagaga acgaaggaag gagagaaaat 180  
 gagtaggatg gagtcacgga gtccgggaag ggttttgggt angatgggggt gtcggattcg 240  
 tatgtttcgc atgtccggac tcccgcaaac tgggccact tttgtctccg at 292

<210> 8229  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-042-Q1-E1-G4

<400> 8229

ccgggtcgac gcggagaagg taacaccaaa ggaaaagaaa acacgtacac agaaagtgaa 60  
tatagaagtg ttcaagactg tgaagcggga ggttcctggg atatctacgt ttcattgtac 120  
ttagttaagt tgatgttact gttgtttttt ctgctgccc ccatgccatg aacaggcgag 180  
gcaggcagct tctcaaactt gtgttgttgt aacttgatg atgggagctt aagtacatta 240  
ctttgtttca taatacacca tgttctcgcc aaaaaaaaaa aaaaaacca aataaaaatt 300  
ggaaaataaa tacaattgga aaataaagcc ttcccc 337

<210> 8230

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-G6

<400> 8230

gccgacgggc aaaatgacgg aaacagaag actttccac tagaagtaaa aacagtgaac 60  
tcacttcatg tgataacacg aaacatagt gcggcatctg ctataccaag acaccgtccg 120  
cagaatgggg atagacccta caaaattcg ccgtagcagc acttccttca aaggagtgc 180  
gccaggcctt tacaccaatt gtacaggctc tgtactacta gaggttgtgt tcggttcac 240  
cgacaacctc catcgcgaaa agctcatttt ccatatcgcc ccattcaaaa gtggccatca 300  
agcactactg ggacgcgaag ctttcgccc ctttaacgca atagcgcatt acgtgtctct 360  
tacgcttaaa atgcccggtc cagcggcat aat 393

<210> 8231

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-G8

<400> 8231

gccgacgggg gcggtgatca tccaggtgaa ccccttcggc aagatggagc acatcgggga 60  
ggtggacttc gggacgcgg cggtggacat ggggctcaag tacatggcct actcgtgcgg 120  
catggaggag agcacgctgg tggacacgct cgggcgcgac caccggcg tcaaggaccc 180

ggagtcgatc caccgcagcg ggtggagcaa ggtggcggag tactacctcg gcaagcagga 240  
 cgtgaagctc gacctccagc ggttcgagcc ggtgctcctc aaggccatgg ccatgctcag 300  
 agagtagccg ctccgatcga gcttcgagcc ccggcgcatt ggttgattcg cactagcgta 360  
 gagcagttcc atttcttcta atttattcct attaatTTTA catatttttg ggtgga 416

<210> 8232  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-G9

<400> 8232

ttcgcgcggt cgacgggcca gcaactgaact gactgtattc attccaaaac aacctatacg 60  
 tatatagggc atccccaaat tagtaccacc tcgtttatat tatatcttaa atataaaatc 120  
 acctaagtgg gacgaaacca agaatatcac cttgctttat tagtaggtat agatatagat 180  
 atagatatgt aattttatat catttcttga actaatctat taactcagtg ccagtgcca 240  
 ttttctgttt ttgcctatTT atttgtttca cagaaaaacc ataccaaagc aagttcaaac 300  
 acgatgaaat tttatgataa tttttcctgg accagaagag accctagaag ctttgaggga 360  
 ggctagaaaa tatacagaga gccacaaggt catacggagc accccaaggg gtgcaccacc 420  
 tgagcttggtg ggccctc 438

<210> 8233  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-042-Q1-E1-H1

<400> 8233

cgggtcgacg ggtggtacaa aacagagcat cgagtgaagc ataattgcgt aatggcaaga 60  
 agttgcggag agatggcgca ctggccatct cacaaccata ttgatggcgc actggaaatc 120  
 ttctcaggca aatactgtaa tagccaccaa tggtttgatg acattgctta ttgcaagact 180  
 tgaccatcga aaagttattg cttgtttgac tctgctgaaa ctaataaagg tttggTTTT 240  
 attcttttct ctcatggttg agtgattcta cttgtcaagt aaccaacaac gtttttagag 300

taagcttaga attttgggtc actcatgata aattaagccg ggaattaggt taataaaaaac 360  
 taaggcggga attttggata ctctgtatca ttgaagtgtt ccatgttgtc gtgtacaatg 420  
 tgagac 426

<210> 8234  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-042-Q1-E1-H10  
 <400> 8234

gggccacggg atccaccttt tgccggatta ttaccaatat aatcataaaa ggctaatttt 60  
 tcgggaattt tagaccaagc ttctgataaa ctaagatttt cggctaaacc attgctaact 120  
 ctctgatata tttcttgctg aaagtatccc tgatcccact gataacgagt aggcccaaact 180  
 aattcgattg gggtcgttgc tgaccatac cacatagtgc cagcaactac gaaagctgca 240  
 aaaaaaacag cagcgatact actggaaagt acagtttcaa tattgcccat acgtaatcct 300  
 ttatatagac gttgaggcgg acggacacta agatggaata agcccgctaa tatacccaat 360  
 gtacccgcag caatatgatg agaagctatt cccccggaa caaaaggatc ananacttct 420  
 gcacccacg ctgga 435

<210> 8235  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-H12  
 <400> 8235

gggccacggg aggatttcgt tggcgggggtt gaacctggcg aagtgcgagc accttgccga 60  
 tgccatcatc gactccttcc acaatgtcaa ctagattatg atttgcgctc cggccacgct 120  
 actgcgatta gttccttcca tagtttgctg ggatttttgg gtccttccag ctcgagtttt 180  
 tagtcgcgat gctgatgacg tgtccggtga ttcagaggta cagtaataaa taatttggca 240  
 aaactcaggg atgctaggcg ctatgcaact gtaccgtttt gcaagcttgt aatgctgatt 300



aattatgtat gatggcatct ccaattaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaag 360  
 aagaacaaaa a 371

<210> 8236  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-H4  
 <400> 8236

cgggggccaac ggggcaatgc aaaaccataa tggcacctcc caaggggcaa taacaaaaag 60  
 gttcaacctg gcataacctg agcaacatgc agcctgcccc acaaattggct acggacaatt 120  
 tgggtggcca caaccttcat acggctgcca tgctctccgc agctggacgg ggtggacctg 180  
 aactcgtccc taattcattg ctgccttttg aggtttccgt cgtgcttcgg ggcccataat 240  
 ggatacccac tatatatcgc aagaagtttt cagttgacat gcgttgcttc gccggggata 300  
 aggtttggct aaagcccga acccctccta atggtggggc ttcagttggc gggtcattac 360  
 catgtccaca atttagacct ttcataatgg 390

<210> 8237  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-042-Q1-E1-H6  
 <400> 8237

gtcaggggaag agcgaaggc ttttctacc aatctatccc ccaggagcat gcacgtaata 60  
 ctttgccttg ataaacttct agatttttgc agtaagtata tgagttcttt atgactaatg 120  
 ttgagtccat ggattatagc cactctcacc ctccacctt tgctagcctc tctaataccg 180  
 cgcacctttc gctggatca tacacctacc atataccttc ctcaaacagc caccatacct 240  
 acctattatg gcatttccat agccattcca agatatattg ccattgcaact ttccaccatc 300  
 tagttcatca tgacacactc catcattgtc atattgcata tcccgggtaca ccgcccgatg 360  
 cattcacata gagtcatatt ttgttctaag tatcgagttg taaatgttga 410

<210> 8238

<211> 412  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-A10  
  
 <400> 8238

```

atgacaaaaa aaaagttccg gaagaaatat ggttactgcg aaaaggcaga cgtgaagtgg   60
aagccatatg ctctgattt caagcacaag aatctggcta agctcaccat ctacggcttc  120
caacccaacg acaattttta gcgatacatc aggtgtgttg tggaacatgc ggttaatata  180
acagagatat ctctgtacga caggaagctg tgtgggcgct gtggtgacaa ggtttatcaa  240
tcaagatata cacggactgc cgaggagagg aaacgaacgg ctgaagggtt gggtttgact  300
tcacctgctg tgattcactt ccggctctaa ctgaaaaatg atttgcatga tattcttata  360
tgtagtttgg aaatcaactc ctatcatctt tagtcggaag gagttcctga ac          412
  
```

<210> 8239  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-A11  
  
 <400> 8239

```

cgcaaggacc ttatggtttg gtctaacccc aaatggcata aacccttttg gggagcaaaa   60
cagcaaccat agcacctggc cggtgactct aggttttgta taaccttcct ccttggttgt  120
gcatgaancg gaagttcatt atgatgccag tgctcatcca aggccctaag caaccggca  180
acgacattga tgttttacct aaggccatta gttgaagaac tcttacaact gtggaatgga  240
ataagtgtac gtgcgtggga tgagcacatg ggggaagaat ttgacctaaa ggcgtttttg  300
ttcatgacca tcaatgattg gcctgctctc agtaaccttt cangatagac aaataaggga  360
atacgcggat gcacgcactg tttggatgat accgacagta tata          404
  
```

<210> 8240  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-A12

<400> 8240

gacgagggaa tgtaagcaca gggttctgtt ctcttccatg tttttctgct gttgtgcccc 60  
at ttgatccg tgtgtgaaaa gagaatgact atgggttttt gtgtgcacgc gcgggtggca 120  
cttgaatggg gtgcacgtgt acatgtgtgt atgctaacac cgatttgggtg tgtgctgatg 180  
atcatgtaaa ttattatggg ttgattgctc gtggatgtaa ggtctatgta cagttgtttac 240  
atgagtgtctg tacagcctcc gcatgcatgc gtgctgcttg gcattgcacg tttataatct 300  
cgggttggtta cttgtaagcc agcatcagtt gtaaagtacg tgtgtcaaaa taagaaaact 360  
ctttcctttt tttttggttc aagaaaactc ttt 393

<210> 8241

<211> 142

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-A2

<400> 8241

caaggcctag ttaaaactta aggcaaaggc gttcacctcc aaaattgtaa cctaaatcca 60  
atgcatggac ttccggttga cagcctggga acgggtaaac ccttgtcggt tggaaattta 120  
accgcgtagc gtcaaattta cc 142

<210> 8242

<211> 318

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-A3

<400> 8242

gactggggaa cggatcggca gctcctaccg ccagggtcct ggagaagtac aaggatgagg 60  
cgctcgagcc agacattaag acaactataca tgaggctgga agtgctggag gctgaccggg 120  
aatcgatgcy ccaggctctg ctgggaatgc gcactgagaa agctcagctt atgcttcttc 180  
gggagatagc acaacagcta gccaaagacg ccgctccagt tggcactggg gctgggtctg 240  
ttccagttgt ccaccatttg cccagaaagc aagctgtggg ggctgcagat acaacggtca 300  
gggaagacaa gaagacag 318

<210> 8243  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-A5  
  
 <400> 8243

```

cgggggaaca catgataacc tgtgtgcttg ttttgctagc gtcggtcgat cgatctcttg 60
tgtcaccgct gatgattgtt ttgggtggca tgattatatt aagttaacta gtgagtagta 120
gcttccaact tgtatggatt gttgaatggt tcatggctgg atgggcatag catgcagcta 180
agcctctgaa tcgatcctgc tgtgatcctg aacaagggtt gactacatat aaatagcagc 240
acatatagtt tatcgacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagg aaggaaaaaa 360
aaaaaaaaaa aaaaaaaaaa aaaaaggggg ccccccaaaa g 401
  
```

<210> 8244  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-A7  
  
 <400> 8244

```

gggaacgagg gcctctctct ccatcccgac ctctcgtggc cgccgcgaag aaaaggagct 60
tatcatggct tcaaaacgta tcctgaagga actcaaggac ttgcagaaag atcctccgac 120
atcatgcagt gcaggtcctt ctggcgagga tatgttccat tggcaggcaa ccattatggg 180
tcctcctgat agtcctctat ctggagggtgt tttcttagtg aatatccatt tccccccgga 240
ctacccttcc aagcctccga aggtatcgtt caagacaaag gtcttccatc cgaacatcaa 300
tagcaatgga agcatatgcc tcgacattct gaaggagcaa tggagtctctg ctttgacaat 360
ctctaagggt ctgctttcaa tctgtcact gcttaccgac cctaaccggg acgaacctct 420
cgtcctctg 428
  
```

<210> 8245  
 <211> 383

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-B1  
 <400> 8245

aatgcgaaat gagctcgtcg tcgccttcct gccatagcta catccacaga tctgcagggt 60  
 ccacgcatct tcgttattcg ctacgatcgg ctacaccgcc gtagtgtttc atatgcatca 120  
 tgtcgcaggc agtcaaatgg attattgaaa tgattcgggt gactaaagct tcctagattg 180  
 tgaatgactt tctacattgg ggcaaacaga gggtcgcgt tgattttttt gcacttggtg 240  
 aacaacttag ggggcaacac cattccagca agcccaggc gccactggca tggatatggg 300  
 tggtcgttat aacatatgga gaatatgcac atggaagtac tactattggg ccaatttatg 360  
 ccagggtgtac atcaagatgt ttc 383

<210> 8246  
 <211> 275  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-B11  
 <400> 8246

tgcgccaag gcagccatgg agttcctcga ctccctctgc atcgctggcg cgtccagaaa 60  
 tgggatccag ctgctcaaac cgaaatccaa gaagaaacat gtgcaggcca agtccttgta 120  
 gaggccgccg tcgtccaatg gccggggcgat cgagggggca gaggatgctg ttggtggtga 180  
 tgtcactccc aagccgcac gtcgggcgac ggagagcgac taggggggtcg ctgcgaagct 240  
 gcaccgcgtg atgaataact cgccccggat ttcct 275

<210> 8247  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-B2  
 <400> 8247

cggtcgacta tccgggtcga cggggaagcg gacgttcgat gctgagacgc cgcgggcgcn 60

ggagtctgca cgcagcaaca aggcgtccag aagccccgat cagccgcctg agctgcogca 120  
 tgtgaacaag gtgaaggcgc tcgtcggcgc cttcgagacc gtcattggacg acaaccaaaag 180  
 ccccgccacc gcccgcaagc cgcgggtcaa cctccacgcc tgaactacga gtacattcca 240  
 ccagcatgaa gctcgatcgc gtgcgcctcc tcctttatcc cggctactct ttaatcacc 300  
 atcaacccaa tttgtcgtcg tcgcacactt atctataatt acggtatcgc ttacattttg 360  
 caaagaagaa gatgatgg 378

<210> 8248  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-B3

<400> 8248  
 gacgggaatg tacacaaaat cggatcctca attttactg tggctaaaaa acatatggct 60  
 tccataaata aaaatttaag gcgccaccac ttgaggttca aagggttcaa aggtagggaa 120  
 caataagaac gggccaagaa gcaccatttt tccttccaaa tcacaggtgt ccttaatttg 180  
 gccaaagttta ttgcacacat cttagtatt agcatgagga atacaaccat agtgattagc 240  
 atggatagaa atttgatatg ggtcagaggg atttcgaatg gcacatttgt gaggacgaca 300  
 atcctgcact aataaccagt cctgacagtg tactgtttcc aagtgttgg agcaagtgca 360  
 agtcagctgc ataaatcaaa actcatagag tcaacttctt gtatgcagca ccgacacatg 420  
 a 421

<210> 8249  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-B4

<400> 8249  
 accggtcgaa tatcncgggt cgaccgggga gttgatgaat gatgacagaa gactcttgca 60  
 atccatatgt agtatggcca atgaggaaca gccaatggtg taaggtatat gcatatgaat 120  
 aatcgctttc atctttatgt atataaaggc ggtgtttaca gcaccggcat agggaaagct 180

tggcctttac tagactcata cacctaattct gtcttctgca tgcctactga aacatttgaa 240  
 tgctttcatg ccaaattgct taatcttacc aagatttgaa tgatgtcctt ttcataata 300  
 atactcaatc ttgaccttac agaggacaca agctcgttta agctctctga gcctgtacca 360  
 acaacataca agtttaaatt ttg 384

<210> 8250  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-B8

<400> 8250

attcgcgcgt cgacgggata acgtaacggg attcccggga gatgaactac gatagcaagc 60  
 tccaaaacat gagctagttc tgctacaaac atgtgaacac gttgtcccag acaaacatga 120  
 ccacaaagta ctcttatcat aaaacactac cgacttcacg aggggggaaac atcaacgagg 180  
 gtaacgaact cttgtgcatt accatggatt aacacttaac tccttttgtc gaacaaatca 240  
 gtcagtggca agtctccaaa ccacagaata ctttcgcacg tatgcatgac tgatttgga 300  
 tgattccaca caaagcaaca ttgactttct cgaatccacg gcgggatctt gcatcagttg 360  
 cac 363

<210> 8251  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-B9

<400> 8251

gggccaggca agaaaggatt ctatcaatgt atcaccattt caatcactac atgacaccac 60  
 acaacagata tgctgctgtc agcagtcctc tctaaataga cactgcaatt atcgataaag 120  
 tacatcattg ctgctgtcag cagtgtctc taaatagaca ctgcaattat catgtacatc 180  
 attgctgtg caatgaacca ttaagaatta tttaaaatct agcctaccat ctgcgttgtc 240  
 gtcaacagag gggtgaggcg gagttacaaa atctgtatga gaaaccgagg gattgtccga 300  
 gtcagcgaca tctttgttat cttcagagct gtcagaagca gctgagatgg cgtcacctga 360

ttctgaatgt gttctgtcca catatgcttc aggtaaggag ctctcggcca cgtcagcatc 420  
gccgttatgc cgagcaatc 439

<210> 8252  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-C1  
  
<400> 8252

cgggtcgacc gggggcataa cttatgtaga aagaattaaa ctctcttgct tcaacttatat 60  
ctatttagag agatgacagg aactggcatc tcacatggat agtcataaaa tcctagataa 120  
aacttgtaga tcaactgaata tgatatgttt cattccttgc aatagatttg cgatataaag 180  
atggcgatat tacagtcattg ctacgaggga gttgtggatt actagaaata cttgtgttga 240  
tgtttgtgat tcccataaca tgcacgtatg gtgaatcggt atgtaacgaa gtcggagcat 300  
gagttaatta ttgattgtct tccttatgag tggcgggtctg ggacgagcga tggctcttttc 360  
ctaccaatct atccccctag gggcatgcgt 390

<210> 8253  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-C10  
  
<400> 8253

ttcgcggaaa gtatagatca tcctgatccg gtccctctgg cgggtgctccc gcgagctgat 60  
gtcgcccta ctgctcaggt ggactcaaat ggctgcttag gttgcgggca aaactgttgg 120  
gtgcgcagtc gcgggggagc cgcaggcaat caatggcgac aaggctctgct caatcaacgg 180  
acagggtgaa cccgaggctc cggcttaggc aaaaagttca gaagttacta aactacaaga 240  
ctattcagcg ctggcacaag aggtgggtgag gaatagcgac tacgacgagc aaagacgcgg 300  
tgacgcggc aacaacgact gtcgcctgct ctctggtaag gcctccatct tttatctctt 360  
tttgtgtcac tttgaactat acacaagtgc aaactagttc ggctcaagaa aagtataaac 420  
aagacacaac cctctt 436



<210> 8254  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C11

<400> 8254

ggtgaatcat ctaataagga aactgcagat cttaaactta taagtattca tcccaatatt 60  
 tttgctatca ttaaggaact gattgctaca aatgaatttg tcaatattgt gcctaaaagt 120  
 tttataatcc ctagaaagaa agaaattcct aagggaaata gatgcatcat cgaagaattg 180  
 cctaccaaag atggtaatac ctagatctat cctcgttttt atgcctagct ggggggtgtta 240  
 aacgatagcg cttgttgga ggcaacccaa ttaatttta atcccttgct tttttccccg 300  
 gctaagtatt aaataaatta tttacccccg gttttgg 337

<210> 8255  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C2

<400> 8255

gacacaaaac aaccgcccgg gcgatgatgg acgagtacta cgtcggcgag atcgacgcga 60  
 ccacgatacc caccaaggtc aagtacacgc cgcccaagca gccgcactac aaccaggaca 120  
 agacccccga gttegtcatc aagatcctcc agttcttggt cccctctcgc atactgggcc 180  
 tggccgtcgc cgtacggatc tacaccaagg cagactctgt ctagcaccgt catcttatac 240  
 cagtcagtca gtcattcgga agtgtccaag agctgaataa gttttagtgg ggatttgcac 300  
 atttgtacc agcgtcaccg tctgtcatg gaatctggga actgctctcg acccgt 356

<210> 8256  
 <211> 317  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-043-Q1-E1-C3

<400> 8256

accccccaagg gcctgattgt aatcttgttt ccttttctgn ggtgtttttc tgcttatgtt 60  
ctggacacct gtgtgttctg ggtccttcgt ctgggtgcta ctacatgtgt tgtactcctg 120  
tttgctatat gaatggcatg tgggtgcttca aaaaaaaaaa aaaaaaaaaa aaataaaaaa 180  
aaaaatataa aaaaaaaaaa aaaaaaaaaa aaaaaaatca aaataaaaga ttaaaaaatt 240  
taattcaciaa aaataaaaaa taaaaaaata ttttaaaaaa taaaaaaaaa taaaaaaaaa 300  
agggcctccc caaaaat 317

<210> 8257

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C4

<400> 8257

cgggtcgacg ggaaaccgga ctaccaatcc taaaaccccc cggcggcgga attcggcacc 60  
caccaccaag ccgtccaaga agccccgatt aaacctccgg aacctccgga aggtaaacaa 120  
ggtaaaggcc cccgtcggcc ccttcaaaac cgtcaggaa aacaaccaa gccccgcaac 180  
cgcccgcatg ccgcggtca acctccacgc ctgaactacg agtacattcc accagcatga 240  
agctcgatcg cgtgcgcctc ctccctttatc ccggctactc tttaatcacc catcaaccca 300  
atgtgtcgtc gtcgcacact tatctataat tacggtatcg cttatatattt gcaaggagga 360  
agatgatcga agggttatca tgatgtaata ataataatga tcatggaggg aaaaaaccca 420  
cccgttgga aaaaaaaaaag cggccgcccc aa 452

<210> 8258

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C5

<400> 8258

gacgggggca catagaacat ctacacacat gcccatcgca atgccttcca tgccggctcc 60  
ggcactagcc ctggcactgc tcgggtgcttt cggcctcgcc atgccccgg ctgttcagtc 120

ggccccacc atcgaggcca tccaagctac atgcgccaag acaatacagc cagactcttg 180  
 caaacacgtc ctgctcgcca tcatggccgc cggctcaccg gaggtgaaca gtgtccccct 240  
 aatgtccctg caagtcgcgg caaagctcgc caagatggcc aacggcttcg ccaatgccag 300  
 gctcaccacg gacccgcacc ccgccaatg cctcgcaaac tgcacgaag accttcatag 360  
 ggtggccaag gcatttgagg ggatcccagt gg 392

<210> 8259  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C6

<400> 8259  
 attcgcgctg cgacaggatt aattagattc atacccatca agtcgaacat aattgaggct 60  
 catatacatg ctacagtccc ttctgaactc agaatactcg gctgaagaaa ttcagtctag 120  
 tggatgctg tctatatctg atctgcaatc tcagctcgac agtcttctgt aggccatact 180  
 tttgatctgt tttgttatgg tgtgtectct gagtctgagt gagaaatgca ctcgattggt 240  
 catctatagt gatgttactt ttaatcctgt catcaaattt aaacacactt tgatatgaca 300  
 tcaattatgg tggatggcta atacactatt gttgctaata tgtttagcata tcagattgat 360  
 taaatcgccc ttccaacaa t 381

<210> 8260  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-C7

<400> 8260  
 attccggtcg acgggcgaac tgatgatggc ccgacgcgtg catgcgcgtg gcgtgaagtg 60  
 atggcacgaa gcgttcgatg gaggagtcca tggatgaata aatagtactg tagctactac 120  
 taaatgtatt tcgctgccc tgctactact gtagtcatgg ttgtataata atggtgtcag 180  
 tatctaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gaaaaaaaaa aaaaaaaaaa 300

aaaaaaaaa aaaaaaaaaa ggggcccccc aaaaggttca aatttaattt ccccttaaag 360  
 ggaatttaaa accccttcaa aaggggcccc aaatttaatt tcacgggcg tcttttttaa 419

<210> 8261  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-C8  
 <400> 8261

attcgcggt cgacgggttc caaaaatata tttaaaaaat atttaacaag taaaaataac 60  
 atcatattca gattgtacac atttttctaa tcaaatttca tatataacat gttaaaattg 120  
 gagttacagt ttaaaagata cagataattt agaaaagcat ttgttttatt taaatatctt 180  
 ccaaaataat atttaaaaat atttaacagg taaaaataac aaaaaatata tggagagttg 240  
 ttaaaaaggt tgtaaaaag atacatgatt ttctaactcat aaaaatattt ttttgtctgg 300  
 aaaagatcat ttttgtatgg tcttctgtgg acgcaggtag ttgcgccctt atttcatcac 360  
 tatttcttgc tatacatgtc 380

<210> 8262  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-D1  
 <400> 8262

ttcgggtctac atgtgagtct gccgcggtac aaggagggcc ggctgcccgc cggtgacatc 60  
 attctagcca gcggttagtc aaccgtggct cctaccatgc gtgggtggca cgaggtcctc 120  
 catcggtgat ggcatcgcc gagaagacga gtcagagaca gaggacatca gaacatgctg 180  
 attaaggaag atatcggtgt tgacatttta tgccacgtca gctccaacga ctgggccatc 240  
 cttgtcataa tcacgatcga ttttaaagca ctcggtcatt tgggggtttt gaacagccgt 300  
 ctctaaagtt ggtagttatc agcaccagaa taaacttagt agttttttga aaccctaccc 360  
 cgaactgtag taattttatg tcatttactc gagttcaccg gaataatacg ttgggtttcc 420

<210> 8263

<211> 409  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-D10  
  
 <400> 8263  
  
 accacaagaa ccaacgtcag cgctcgccctg caagcacaac agaggattgg aactctgaat 60  
 cggacgacaa ctgaagcaaa acaatcgacc atcgacagta aacctctgaa gaaatgttga 120  
 aatgctgctg ctgcttggtt gattacagag agctcagtag gcaattaagg cctcacatct 180  
 gacattagca tccgtaacat ttgctagcac tactcctagc agtacacaag atcacaagaa 240  
 tctccatttg ctagcactac tcttagcagt acacaagatc acaagaatct ccatttgcta 300  
 gcaactactc tagcactact cctagcatct gacattaagt tttgacggag aagagacagg 360  
 aagaggaaga gagagcaata cctcaaggag tcatcaccca tggacgcat 409

<210> 8264  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-D11  
  
 <400> 8264  
  
 agccaaagat atctgtaccg aacggtgtca atggagagaa acagcaggat gccgtcaatg 60  
 ggaagccaaa gtcgcctgtg gcgaatggtg ttaacgggga tgcgaagggt ccggcagaga 120  
 aagccgctgc caccgctgct cctccggccg ttacctacgc ggcgaagggt gcccaaacag 180  
 cagcggccga gaagaagcct gtggcgaccg agaagaagcc tgttgctgcc aacggtgctg 240  
 tcaagaccgg agtagctgct tgatgcgatt acccgatcct ccagctagc catgaagaac 300  
 aaacggacgg tgctggcgaa ccaggcgaga catgcggggt ccaaggtact gatcatcaaa 360  
 ggtggcgtct ggaaagcggg tccgataat 389

<210> 8265  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-D12

<400> 8265

ggggccagcc tgaacacttg agttcatgct catggaaaca atgtagaatt tttcatgaag 60  
attctcacia aaaaataatt atccccttgt accattccat tgtattataa aaataatgtg 120  
ccatgatttg cctttaggat gagtagattg cttgttggtt tgtgcggtgc aaacataaa 180  
ctttggctgt agtgctcgat ttacattttt ttactcaa atgtcaaatgat tctgaaactt 240  
tttgtaatgt ctttatatat aatTTTTTTT cttttttcct aatTTTTTca gaatttttag 300  
agttacagaa gtatggtgga tgttcaa atc ttacagact gtgtcctgtt ttcacatatt 360  
gttggttatag cttcattatt tgcgtatggt tg 392

<210> 8266

<211> 333

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-043-Q1-E1-D2

<400> 8266

ggagctaagg gattcttcag gggatgggtg cctaccttgc ttggttacag tgctaagggg 60  
gcttgcaagt ttgggttcta cgagttcttt aagaagacct actcagatat ggctgggcct 120  
gagaatgctg cgaagtacaa gacctgatt taccttgcan ggtagcttc tgctgaggta 180  
attgctgata tcgctctgtg cccctttgaa gctgtcaagg tccgtgtgca gacacagcct 240  
ggatttgctc gtgggttgag tgatgggctt cccaagttca tcaaagctga ggggtgctgct 300  
gggctctaca agggcattgt tccgctctgg ggt 333

<210> 8267

<211> 395

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-043-Q1-E1-D3

<400> 8267

gtggcanaaa tagcgccgga ggctgcattc tggccataat accgcctggg ggaagaaggg 60  
gtaggaggat tttgttgac cagccattat taaattgaat gcgtgccaac cactattttc 120

ctttaagtt caagtaaaac taaaactcga tcaataacat gccacagcat ccaggaagca 180  
caatactata tcattcacgt gcggtccccg accctccatc aagttgaaaa ctagactagt 240  
gaaaatgtca attaggatgc ctctttgcat acaaatgtgc tcctagcttc aaaaaaatg 300  
cactcctaca tgtacccgcg aatgggtgtg agagaactag tgcgtgcatg caccgcttcc 360  
cttcgtgaga gtacaatata ctatgccaa agaac 395

<210> 8268  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-D4

<400> 8268

ccggtcgacg ggtgagcatc atagaaatat tatgcctagc tataaggctt taaagaaaag 60  
cgcttggttg gagacaacc aatatttttc ctttctgtta ttcaataaat aatttatcta 120  
gcctctgttt tggttgtgtt tgttgtgttt aattagtgtt tgtgccaagt agaaccgttg 180  
ggaaaacttg gggaaagtct tgtaatctt gctgtaaaa acagaaactt tagcgctcac 240  
gagaactgct gtaattttta ttttgaaagt gctatttagt taattctttt ttgaagatga 300  
ttaatagata aattcctcac gtccagcaat ttattttaga atttttgggg ttccagaagt 360  
ttgcgttagc tatagattac tacagactgt tctgtttttg acagattccg ttttctgtgt 420  
ggtgtttg 428

<210> 8269  
<211> 409  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-D5

<400> 8269

attcgcggt cgacttgggt aggaagcttc cttagacagg tcagtctgcc gggggaggag 60  
ggaggcgggc tgcccgcgg cgacatcact ctagccaccg gttggtcagc catgggtggc 120  
agcatgcgtg tcgagcacga ggtcctccat ggctgagggc gaacggcgag aggaagaaag 180  
agagacagag gagaagaaaa catgctgagt aaggaagata tcggtgttga cattttatgc 240

cacgtcagct ccaacgactg ggccatcctt gtcataatca cgatcgattt taaagcactc 300  
 ggtcatttgg gggttttgaa cagccgaccc taaagttggg agttatcagc aaaaaataa 360  
 aattagtagt tttttgaaac cctagcccca actgtagtag ttttatgtt 409

<210> 8270  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-D6  
 <400> 8270

attcgggcgt cgacgggaca gggcacgaat acctgcagca cgagaatttc atggaatgag 60  
 cagtcagtta gtcaaggcaa tgccgagtct tattttttaca aaagtccagg aagacaattg 120  
 tacttcgtca acatgtgccca tttgcttgga agactacagt gttggtgaaa agataagggg 180  
 gctgccttgt cgtcacaagt tccatgctgc ttgcgtggac ctgtgggtca catcatggag 240  
 gacattctgc cctgtatgca agcgagatgc aaatgctgga atgtcaaatt tccctccatc 300  
 agagtctacc cttttgcttt cttctgctat tcccttgcca gctgaatcga cagctttgtc 360  
 atcttttctg tcaatgggaa cagcatctcc tccaaggaca at 402

<210> 8271  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-D8  
 <400> 8271

attcgccggt cgacggggaa cgtgatcacc atcttcgagg aggaaggcgg gcggccggac 60  
 gccatcatga tcctgacggt gaagcgcgac aacatctgca gcttcatctc ggagaccaac 120  
 cccgggcacg tgcggtcgtg ggagaccaag gacagccagc tgacgatggt ggcggaacgac 180  
 ctgaagccgc gggcggtgct gacgtgcccc gagaagaagt tgatccagca ggtgggtgttc 240  
 gccagctacg ggaacccgct ggggatctgc ggcaactaca cgggtgggcaa atgccacacg 300  
 cccaaggcca aggagattgt ggagaaggcg tgcgtgggga agaggagctg cgtgctggcc 360  
 gtgtcgcacg aggtgtacgg cggggaactc 390



[illegible][illegible][illegible][illegible]

<210> 8274  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E10

<400> 8274

cggagcagaa atgacgctct agatgcggtc atagcgcaca gagcgcgtgc attgccatgc 60  
 cagctgcacg gtcaccacga cacaaggcac agggatgtca cgagaggatt gcaaaccttg 120  
 tctggtgatg tttccttcca ggggtggagca tttatgagtc tatggcttga tctgaggtgc 180  
 tatggtgaag ttggaactaa gttctgaagt ttgctgtagc aaacttggct gcgcactagt 240  
 gatcaacagg gatacaattg gagccaacga ggttgtctgg ggtgttaaga ttaggaaaga 300  
 ctaaaatccg ggggagtttg aggaaaaatg gaccaaggat taatatagtt gctttaaacc 360  
 ttcataattg gtccaagacc aagattatga tgatgcact 399

<210> 8275  
 <211> 150  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E12

<400> 8275

ctggggtagt ataagaacat tgtcaccaca gtagaattgg tcatgaaatt tttgtccag 60  
 gtgaaaccat gtactaatcg aaacgggtgg taacgcaaaa aaacacgaga aaggcgtacc 120  
 ggtcaaagat aaagtaaaat aacgtacttt 150

<210> 8276  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E2

<400> 8276

cgggtcgacg ggggcgcagc aggacggtgc agacgtcagc gggctcatct ccatgatcat 60  
 acaggctgtg ctgacagccc ggcacaatag gttcagtgagc gagcagctcg cgcacggtg 120  
 cctcatgatt gcgcagctcc tgccgaacgt gaaggagcca gaggcggcgc agccacttgc 180

cgggctggac agtactcttc ggagagccca cgagcttgtc gtgtcctgcc aggagaggag 240  
 tgcggcgtag cagtttttca tggctagcag gactgccgag aggttcaggg aggttagagag 300  
 caagatcgac tectacctca tectcttccc ggtgatcagc tatatcggca taacacgccg 360  
 ccttgaacga atctac 376

<210> 8277  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E3

<400> 8277

taaatttcaa ggcaatttca accacaacaa taacaataac ttaacaatcc atggcāaaat 60  
 ggctttgcag gttcatagaa tacctaacag gaggtttcca gggcttgtcc attttttgat 120  
 gtcattgcta cgctactatc gttgcacatc ccggtacatc gccaaaggca ttcacatata 180  
 gtctcagata tcgagttgta acattgagtt gtaagtatat aacagtgtga tgatcatcat 240  
 tagtacaaca ttgtccaag tgaggttatc acaataaaag tggatcataga agccctcccc 300  
 cccc 304

<210> 8278  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E4

<400> 8278

gcaccccatg atggcaaaaa tcaacaccga cgggtgacggt ttcaccaact taaccaattt 60  
 aaccccttc ggaaacgcaa acccggggcc cataaaggac ttcccaaagg tcttcaaac 120  
 aagtcaattt cacccaaccc ttccgtccaa agagccgatg catctacgta tggcttcgta 180  
 tatcaatttc atgcaactac ctactccggt cacgatccag cctcagcttc acctgaggcc 240  
 gccctaaat ttgtatgatc aaatcttttg ctactactag ttactactga tgatcactgt 300  
 tgcacatatt atttatttat tttatatatc atcaca 336

<210> 8279  
<211> 390  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E6

<400> 8279

gacctccgcg gacaagggtgc agcgcgatgat ggcagagatc gacaccgacg gtgacggctt 60  
catcgacttc agcgagttca tctccttctg caacaccaac ccgggggtca tgaaggacgt 120  
cgccaagggtc ttctgaatca gttcatttca cctcagccgt ccgttccagg agccgatcca 180  
tctacgtacg gcttcgtata tcaatttcat gcaactacct actccggtcc cgatccagcc 240  
tcagcttcac ctgaggccg cccctaaattt gtttgatcaa ttcttttgct actagtagta 300  
actagtgatg atcactgttg catcatttag ttatttattt tatatatcat cacaagtttc 360  
ctgtgattct tttctttcta tacctttttg 390

<210> 8280  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E7

<400> 8280

attcggcgtc gacgggccta atgaaaacta agggatatta atgcctcctt ttaatagagt 60  
accataccaa agcattagca cttagtgaat acacgaactc ctcaaactac ggtcatcacc 120  
gggaagtgtc ccgactattg tcaactctggg gttgctggat cataacacat agtaggtgac 180  
tatagcttgc aagataggat caagaactca catatattca tgaaaacata ataggttcag 240  
atctgaaatc atggcactta ggccttagtg ataagcatta agcatagcga agtcatagca 300  
acatcaatct tagaacatag tggatactag ggatcaaacc ctaacaaaac taactcgatt 360  
acatggtaaa tctcatccag ctcatcatcg tccagcaagc ctac 404

<210> 8281  
<211> 291  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E8

<400> 8281  
 gtaccgaaca aaaattccgc gtcgacggga ttaagaagtc tccagtcaca ttattataac 60  
 cttatggtaa tacatttatc atcctgctgc agaccttggc catatatgta agtcacgcac 120  
 atataattca cacaataaat cacatcataa caatggaatt catcggcagg ccgtatatcc 180  
 atgggatgat tttcgtacat agatctaaac aagaatggca tgtctacctt agggaaactt 240  
 ctatatacac tcactcattg tttacacata cgtcagggtcc aagactccaa t 291

<210> 8282  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-E9

<400> 8282  
 gaagaggcta cggatgggca gcggtgaggc ggtggacgga ggagggtggg gtttcgcggc 60  
 tggagcagag aggttatggc ggcttgggat ttcgaatggc gaaaaggagg cgatgggagc 120  
 gggatgaagca tgacttaagg acacgcttat ccaaaatgta ggggtgtgta caaaagtacc 180  
 cccaccgat ttgaactagc agccctttcg gctcagggtt agaaggggga tttcgcgtgt 240  
 cgggatttgg cagctggagg gagttttcgc gcgcgttgta atttcgggag caaggcgcgg 300  
 gttgtgaagg cgctagtgtt gggagcacga tatctaaatt ttcgggatat aacaagacgc 360  
 gggttgaatt ttaggtacaa gcctaactg tagtaatat gtacttgtag gtaccaaacc 420  
 aattcgcac 429

<210> 8283  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F1

<400> 8283  
 ggccatcgac gcattcgtct ccggcgccac cgtctatggc tacagaggaa agagcattaa 60  
 gtctgccctc attggtggtt ctagcctggc attcacatct gccatcctgg acgttggtgg 120  
 taatactacc agagtggaca atggcaaagc gtaccatgca tacacaacgg aaaagaagcc 180

cgagcctgcg cattgaccaa ggttggttac ttgtagcaca aatcatgcaa accagctcgg 240  
tgaatTTTTg agctgatgcg tgctgttatg tctgttttgc tgatgcacct agttcctttg 300  
caaagctgta gtaacttgtt ttgctcgagg gcaatacaac agacctggaa taaatatctt 360  
gttt 364

<210> 8284  
<211> 314  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F10

<400> 8284

gatcatgcta ttgacacgga tgccacggtg ctggagctct caagggcctg cagtttcatc 60  
atgctcctcg cctaagtcgc ctacctcttc ttccagctca agacgcagca ccagctcttc 120  
gggccgcatg atattgaggg cggctatgat gatgaagacg aggcggctct cggctttggg 180  
atcacgctct tctggctcat catcatgacc atcataatcg ccgtgctctc cgagtacgtt 240  
gtcggctaca tcgagccgac ctctcagtca tggggtctct cggtgagctt catcaccatc 300  
atcctgttcc ccat 314

<210> 8285  
<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F11

<400> 8285

tgaacggcat gtacaagggg ttcggtcccg ccatggcaca caatgtcccg gcaaacgccg 60  
ccaccttctg ggactatgag atcacggcat cggacctggg ctgatccgca caggtcacag 120  
cgcagactca gtctcttctc cgatgccgca ttacacagag catctgagac acaattgagg 180  
accatggtaa acaattcttc ttactgcca cttgtttcc gaaaaccatg catatactgg 240  
caccaatggc aggattgttg atgaaataaa cgatgagcat tacctgtcga gcagcgtcgc 300  
gggaacaacc gccgccgcca tggttacgat cactgatctc ggcatcttga tatgagttta 360  
gctgacgcta aataacttca atcgccgag ctttgcttcg atgaat 406

<210> 8286  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-F12  
  
 <400> 8286

```

agtggcggac ggagacgggc gatggtcttt tcctaccaat ctatccccct aggagcatgc   60
gcgtagtact ttgtttcgat aactaatagt tttttgcaat aagtatgtga gttcttttatg  120
gctaagtgtg attccatgga ttatacgcac tctcaccttc caccattgct agcctctcta  180
acaccgcgca cttttcgccg gtatcaatca cccaccatat accttcctca aaacagccac  240
catacctacc tattatggca ttccatagc cattccgaga tatattgcca tgcaacttac  300
caccattccg tttattatga cacgctccat cattgtcata ttgctttgca tgatcatgta  360
gttgacttca tatttgtggc aaaccacct tcataattct ttcatacatg tcaactctga  420
ttcattgcac atc                                                         433
  
```

<210> 8287  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-F2  
  
 <400> 8287

```

accatcttga aaatttgcca gtttacaaaa gtgaaathtt ggcaattgca ccaaagcttg   60
agatccctat tgtctttttg atttctccca attacactat agcgggtgaat tttgcgctta  120
ttacggacta tattgatggg ttgcattcta ctattgcaca tgatgatttt gatagatata  180
atatgcatgt gcatgctgct cctacttgca attattatga cagagtaact acatctccgc  240
ctctctatgt ttccaatagc ataaaattgc acgaaactgt ttatactatg cattggcctt  300
tactttgtgt gcatgaattg ttcatttatg acatgccgat gcatatgaag agagttatac  360
cttcgtaatg acatgagata caatactttg tgct                                                         394
  
```

<210> 8288  
 <211> 347

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F3

<400> 8288

ggtcccttca tgggaaggca agcacaaacg ggcctaactg aaccccgag gaaaggcgcc 60  
 tcccctccgg gttttacgcc aacaacgtgg atacatcgac gccaccaacc ggcgcggcga 120  
 cctcacctac gagctcggcg agaattgagtt cgccgacctc acccaggagg agttcctagc 180  
 caggtacgcg tcgtcctacg atggggtcgg tgatgatact ggcatacagt tgctgtggg 240  
 cgggtggcgac gccgagctgt ggtcgtccgg cggcgacaat gatagctcct tggaggctcc 300  
 gcctcccagc tgggactgga gatccaaggg cgccgtcaca ccggtca 347

<210> 8289  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F4

<400> 8289

ccggtcgacc gggatctgta cggacgctta acgcgccgaa tacgagtgcg catcctgtta 60  
 gtacattttt ttatcagatc gtattactag tgtgtgttac ccatctccat gttagcatcc 120  
 caagcccata tgggtgggtcc ttccatccag cccggcccac tctgacgacg caggtctcta 180  
 acacagacga cttcttgcca ttcaccaaca catacatgtc actataatgg atgaatgtgc 240  
 aaatctagca agagggcata tatcacttta gttcgatgat ctgccatttc taaaacaact 300  
 agtttcaatg agtgaaatta gaccatgtgg gcaggttggg aagctaccga cacgtgaatg 360  
 caaacgatga gtgaaatcag a 381

<210> 8290  
 <211> 276  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-F5

<400> 8290

gtcgacgggg tgaagtagtt gtagaagggg tacggccttg tcatggcact cgatgtccct 60



aggagcatca ccatattcgt tggcttcgac atcatacagt tttttgtaat aagtttgtgt 120  
 gtgggtggat ggctaagtgt gtctcgtatg gattatcggc attctcacct tcaatgtatt 180  
 gcaagactct cgacaatggc acacgtttct tcgttactgc tcacttgttt ccgacgtcct 240  
 tgaatatact gacaacagtt acctaatagt ggattt 276

<210> 8291  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-F6  
 <400> 8291

attcgcgggt cgacgggtga ttgcactgta cattagggac tgactcctgt ctgcaaagt 60  
 tcagtgggtg tacatatggt aaatgtgaag ttatgaaaga caccactgtt ggcataaaat 120  
 cctatgcagg tattgctgcg gagggatatcg gaaacggagc gctcttgatg gcaatgaatt 180  
 accatgtcaa tacatccaat agcgctttgt gggattacat gccaatgggt ttccacatct 240  
 gaccttctcc gaaatttttg caccgtactt ccgccatgtt aggccgcgtt tcactttttg 300  
 cttgttatga tagtatttca accctttttg tgggaaaagc tgatattggt tagatgttgg 360  
 gtatagaaga gccatagagg gaacctaac aacacatttt cggcagcacg gtcc 414

<210> 8292  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-F7  
 <400> 8292

attccggtcg acggggtgaa gaaggagaac gacaacatgc agatcgagct caggcatatg 60  
 aaaggcgagg atgtgaactc cctgcagccc aaggaaactga tcgccattga ggaagctctc 120  
 acgaacggcc agaccaacct cagggacaag atgatggacc actggaagat gcacaggagg 180  
 aatgagaaga tgctggagga ggagcacaag ctgctggctc tgaggatgca ccagcaggac 240  
 gacctgagca gcggcatgag ggagatggag ctcgggtacc atcagggtag ggatttcact 300

tcccagatgc cggtcacctt ccggtgcag ccagccacc ccaacttgca ngaagacaag 360  
taggccaccg aatccctgca cggncgtgt caactg 396

<210> 8293  
<211> 376  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-G1  
  
<400> 8293

cggtgcgacc ggatctacaa gtgaagcgga atacatggca gcctcggagg cagcacatga 60  
agcaatttgg gtgaaggagt tcatcaccga cctaggagtc ataccaatg tgcggggcc 120  
gatcaaacac ttctgtgaaa aactggagc tattgccct gccaggagc ccaggtttca 180  
caagaagacc aggcacatca agcgtcggtt caactccatc cgtgaaaaag ttcaagatgg 240  
agacatagat atttgcaaag tacatacgga tctgaatgtc gcagatccgt tgactaaacc 300  
tctctcgga gcaaacatg atcaacacca gaactctatg ggtgttcgat acatcacaat 360  
gtaactagat tattga 376

<210> 8294  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-G10  
  
<400> 8294

ggggccacgg gctgattcaa attttgaact gggggcataa aggtccattt gccattttc 60  
acctggtcgg aacatatcc ccagcgactt acatttcgga acggaggag tagtgactat 120  
ctatttcata tctttattag tcatatgtat ccccgatcgt ttgctccatc agggataacc 180  
ataaaataaa gcagatgcat gttgggttatt gaagagaccc agaggagcaa cttctgaatc 240  
ttaaatatgc caaaagcaca ttcaacattt aaataattgt gtttacctt tgattaccac 300  
aggggtgggta cagactggtc cttctgacct gtgatgataa ctcaagggtg ggcagcggcg 360  
gctgtggtag caaacggtgg tggcggcaga aggggaga 398

<210> 8295

<211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-G11  
  
 <400> 8295

```

gggggatgcc acggaagcat cccatctttc ttcaacaaat atcggtatgt tttcgttttt 60
gtttcgttca cgtgatatgt gtaaactcttg gagcgtcgtg tgctttttat tttttaataa 120
tgcaccatgc tggatgaga tagtccatgg ttggatttat agaatgcttg tgcttcactt 180
atatcatttg aagtttgggt tgccgtgttc tcttcacata cgaaaccgtt atttgtagaa 240
tgctcttttg cttcacttat atttattaga gcatgggtctt ttgtagaaaag aattaaactc 300
tcatgcttca cttatatcta tttagagagt caacaagaat tggtcatttg catgggttagt 360
cataaaatgc tacataaaac ttgtggatta ctgaatatga t 401
  
```

<210> 8296  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-043-Q1-E1-G12  
  
 <400> 8296

```

ggggccaggg gctctaacag catgtagggg tattaccgga tgatgtttcc cggggcccga 60
agctgtctaa atccttgtgt tgtgttgctg ctctcgatcc cgctcaacc ctctcaagct 120
actacataga tgcgctggcc tcgcgactaa gtccgtgacac taaggacatc tgccgtgaca 180
attccacgac acggcccatg tatggcccat gacgtctttc ggcccatatg aggcccttat 240
tactctcggc ccattaacga cccgtggtaa aactggcccg taatgaacag tgtaccactt 300
tataccatt aacggcccg ggtgaaactg gctgtaatg aacagtgtat cactttatac 360
ccattaacgg cctattattc cggtgggccc tttccagccc atgttatctt tcggccttct 420
cggggcccat ttgttcttgg gctca 445
  
```

<210> 8297  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-043-Q1-E1-G2

<400> 8297

cgggtcgacc ggcttgagga ttctggtttg agcgacttgt cccgagtgac cagcgtggca 60  
tccttctttg tcagccgagt tgacagtctg atcgacaaaa tgcttgagaa gattggaaca 120  
ccggaggctc ttgccctgag gggaaaggct gccgtagcac aagcaaagat agcaaaccag 180  
ctttacctga agaaattctc tggcccaggg tgggaggctt tggggaagaa gggagccaag 240  
aagcagaggt tgttggtggc atccaccagc gtgaagaacc cggcttactt ggacactctt 300  
tacgtcgatc ctctcatcgg acctgacacc gtctctacga tgcccgaaca agctctggac 360  
gcgttcacg accacggcac agttgctang acaatcgacg ct 402

<210> 8298  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-G4

<400> 8298

gagagtaaaa taaagaagtg taaaagaaag tggattcatc agatgataca tgagtcacct 60  
attccgaatc aagaaatttg ttgtggaatt tgtcaattga gtaaagtaat aatattaaga 120  
actagatcat ctaaccccat tgaatgaaaa aatgaaattc gattttcaag gaaatttttg 180  
aataagagat aaataaacia ttgaattgaa aaaaaaaac ttctttctat ttgggataat 240  
ttctttttca ataggaccct ctttttggag tgaacgatcg aatattcccc tattccttct 300  
tattttaact gattgtattc catatggaat aagaggagaa caaaagcatt ccacgacctg 360  
ccaaggggct gttaaaaaaa aaagaaagct cttccttgaa tttta 404

<210> 8299  
<211> 383  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-G7

<400> 8299

attcgcgcgt cgacggggga aaaaagaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaattaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaagggg gccccccaaa aggttcaaac ctaacttacc cttaaattgca 180  
 acttcaaacc ccttcaaaag tgccccccaaa ttccatttca ggggccttct tttaaaaact 240  
 tcttaacggg aaaaccccg ggttaaccaa attaaacccc tttgaaaaaa atccccctttt 300  
 cccaagctgg cttaatacca aaaaggcccc aaccattccc ctttccaaaa atttgcccac 360  
 cctaattggc aatgggaacc ccc 383

<210> 8300  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-G8  
 <400> 8300

agagggcgtg ataactcttc ggatacattt ggacaaacaa gacatcggac gtagggggaa 60  
 ttcgttgaag cagttttcaa gaccgatgac ccaagacgaa gaagagctcg gaagatccga 120  
 gggatgtctc caaacttgaa gactgggtta ggagctactg atggtgtctc agaattgggg 180  
 tcattcacca tgctgtgtcc cggccagggt ggccggggccg aggaccccat gtcggttcac 240  
 tagtggacca catcaaggcg gaccatggct tgaagaagga atacttccga agacttggcg 300  
 cctactccaa atacttagat gtcgtctaca acacaattac cttatacata gccgaccttg 360  
 gtataaccct agccaaccct ggtatctata taaaccaggg ggacagggct cgtacatgaa 420  
 at 422

<210> 8301  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-043-Q1-E1-G9  
 <400> 8301

ggggcccagg ctgggtgatt atgaatttaa agaattgctt tgttgaagtt agcaagctag 60  
 ctagcatgca cgtatgggta aagttgtgta acaaatttga aacatgaggt gttcttagat 120

tgtgcatcct tatgagtggg ggtcggggat gagegatggg attttcttac caacctatcc 180  
ctctaggagc atgcgcgtag ttcttggttt ttgatgactt gtagattttt gcaataagta 240  
tatgagttct ttgactaat gttgagtcca tggattatac gcacttttac ctttccatca 300  
ttgctagcct cttcggtagc gtgcattgcc ctttctcacc ttgagagttg gtgcaaactt 360  
tcccggtgca tccaaacccc gtgatatgaa acgctctatc acacatanac ctccctatat 420  
cttcctcaaa acagc 435

<210> 8302  
<211> 253  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-H1

<400> 8302  
cttgcccggg tttcccttgg ccccttggg ttggttcaact tcctcttttc ctttcctttt 60  
tggtttatct ttctcttctt gttgtggggg ggtccccctg tgggttcttc cttttcttct 120  
ccgtcttttc gccttcttgt cctctttttg tggctctctt ccttcttttc ctggccctcc 180  
tttttcttcc ttttcggcgg ggtccctcct gtttttcccc tcttttctcc ttttttcgct 240  
ttccctcttt ttc 253

<210> 8303  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-H10

<400> 8303  
ggcgggggag gattctgcag ctctcaaact tcaaggatga ctccagtcca attgcctggg 60  
actgttctgc gtgggttcgc acatatgggc agtttttgga ggaaagactg gaatgcttca 120  
ggatcctgaa atatgatgtt gaggtgagc gtttatccaa acaaggccaa ggtcctgaaa 180  
agggacacag tagaaccaga gacctagatt ccaggacct gttagagcag ttgccagctt 240  
tgcagcagtt actgtatcgg cttgttggat gtcggccaga aggagctgca aataacaact 300  
acttggtgca atatgctcta gctttgggtgc taaaagagag tttcaaaatt tattgtgcga 360

taaatgatgg aattattaac cttgtcgata agttttttga gatggcaaga catgaagcac 420  
t 421

<210> 8304  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-H11  
  
<400> 8304

cgggggcccag ggaaaccaat tacgatgaca gaggatcacc gagtagtcag tacaacagaa 60  
cgagcgagga tagcgaaatt aggggaatcgc ctgaaagatg gcgaaagccg tatatgtgga 120  
ctgaatcttt gcaggatgct tggagacaag tttctcaaag agcaagatcc aaggttcagt 180  
aaagaaccat atgtgagccc agtagttcag atctcgaaat cgtgctcagc ttttgcgctt 240  
atcgctagcg atggcctatg ggatgtcatt accgcgaaaa aggcagcaca gcttgtcctc 300  
gattataagg agaggaacat gggccaagaa atctcagcgg acggagtagc agaccatgtg 360  
cttagtgaag ccaggaatct gcggacgaag gacaacacat 400

<210> 8305  
<211> 330  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-043-Q1-E1-H12  
  
<400> 8305

ggctaataag gaggaccttc ctttaagtgc cgcggagagg aagctaatgc atgcatacaa 60  
cgagaagcct gtgctttcta gacctcagca tcagtttttc ctgggtgata actactttga 120  
ggttgacatt gacatgcata gatttggtta catctcaagg aaaggtttcg agacattcct 180  
ggacaggcta aaaatatgca tgctagatgt tgggctaacc atccagggaa acaaaccga 240  
agaattgcct gagcaggtct tgcgctgtgt taggttgaac gggatagatt atgcaaagta 300  
tcagccactg atgacaaacg gtgcctgaac 330

<210> 8306  
<211> 261  
<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-043-Q1-E1-H2

<400>      8306

gcgcggcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa    60

aaaataaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagagga aaaaaaaatt    120

taaaaaaaaa aaaaaaaaaa aaaaaaaaaa gggggccccc caaagggttc aaccttaatt    180

tccccctaaa ggaaatttaa aaccctcca aaggggcccc caaatattaat tccaggggcg    240

tctttttaaa aacttctaaa g    261

<210>      8307

<211>      339

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-043-Q1-E1-H3

<400>      8307

caggagagacc ctgctgggca agccgggtaa tccaagggcc gcatgggttg gttcaagtgc    60

aaatttaatt taacttttgg gttaattttc caataattgt ggtttatatt caaaaaacca    120

aaaggtaaaa ttcatgtgag ctttagaaaa aattataaaa atataaaaag atgtcgccgt    180

atgttaaaat agatctatat agttccatta aaaatatgta cgtaatatat gaaagaaata    240

ttcatgtgtc ttcataaaaa tgtcattgag gattttaaaa atgtttatgc aatgttaaaa    300

aatgttgtga gcagtaattt ttctgtttcc agtaaaatt    339

<210>      8308

<211>      394

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-043-Q1-E1-H4

<400>      8308

gctctggaag gccgggtacc tagccaagaa agtagccaat cggcttccgg ccaagggaca    60

aatcgtcccc accccgaagc cccaggagag ggtggtgttc gtctctcact tcgtccgcgg    120

gctgggattc ccctcgacc cgttcggtccg tggacttatg ttctactacg agcgggactt    180



acacgatctg gcccccaacc ccacccctcaa catctcggca tttattgtcg tgtgcgagggc 240  
 ctctctctgc ataccacctc actttggact atggctgaag accttcaatg tgaagccaaa 300  
 ggtggtgagc ggtcagcaac cagagtgcag aggcgccatg gtgggcaaga tgcccaatgt 360  
 cacctggccc gaaggatcct ttgtggagac tgtc 394

<210> 8309  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-H6  
 <400> 8309

cgggcccagc tacggccgca agaagaatga tgacgacgat gacgaggata ggcagcggcg 60  
 atacaagaag cgcgacgacg acgacgatga tgagaggaag ccacggcaca agaagcacga 120  
 cgatgatgac gacgacgatg gcgagaggaa gccgcggtac aagaaacgtg acgacgacga 180  
 tgatgatgag gatgacagga agccgcgtta caagaagcgt gacgacgacg acgacgatga 240  
 tagaaagcca cgttacaaga agcagcagca cgatgacgac gacgacgatg agaggaagca 300  
 gcgtcgcggg aacaaccgcc gccgccatgg ttacgatgac tgatcaaggc atcctgacat 360  
 gagtttagct gacgctaaat aagtatagtc gcggcggcgtt tgcttcgatg aatcaacaat 420  
 tccgtatttt 430

<210> 8310  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-043-Q1-E1-H7  
 <400> 8310

attccgcgtc gacgggattg agaaccggtc tgtgagaaaa tgggcatctg catccagcag 60  
 ctcaagcaac agcatttcat tggacactta cagttctttt catagctatg gcaccaaaga 120  
 gactgacagc tgggtgaggc cacacctgga gcatgatggc tcagggtttgc tgctgcaagc 180  
 atacgatgat gacattgaga aaatctgcta tgtgatgaat gagctagcag gtggtggtgt 240  
 cgatggttct gctgatcgta tcatggatga gacgctttac tcgaatggca tcgatgattt 300

catgattttg ccagcaggca agaatgggga gaagaagaag cagctaacca tcgatcaaga 360  
attcgagcag tactttctcaa aactcatgct ttagcgtgac cgtaacagag aattta 416

<210> 8311  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-043-Q1-E1-H9

<400> 8311

gggcagcgca ggagcaattg tggccatcgt ggtgttttca agggagagcg aggcaactgc 60  
aatcacgcaa ctgaagaagt cgaaacccgg ggcgaagttg gccaacatga aagctgacaa 120  
acctaaatgc cgggtgatagg ttgttcgccg ctgtcgtgcc gtctttgaac ttggtggaga 180  
cgcagaagca gtggcggagc taggatcaag ccatgaccgc ggcaagcccc aggccaatca 240  
cttggtagag tgctaaacag tgtaaaatcc actacagtaa acgaaggagc caagcctcag 300  
gaccaggcc gccgcccggg cagcctgggg cttgtctccg ccactatgca gaaggagaac 360  
ggtggcgccg tgaagacctt gacgactgtt gccatgacca caacatgat gattgtgttg 420  
gtaataaaga ta 432

<210> 8312  
<211> 390  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A1

<400> 8312

ccgggtccac ggggtgctgt tagagttccc gaccgggtac ggcgccatgg ccgcgagat 60  
gaaggcattc ttgactcca caggctccct ctgggagaag cagaggctcg ccgggaagcc 120  
cgctggattc ttcgtcagca ccggcaccca gggcggcggc caggaaacca ctgcttggac 180  
ggcaatcacc cagctggtgc accacgggat gctgtttatt cccatcggct acacctttgg 240  
ctcgggcatg tttaacatgg acgacatcag agggggcagc ccctatggag ctggagtttt 300  
tgctggtgac ggtagcaggc agcccagcga ggcggaactt gccctcgccg agcaccaggg 360  
caagtacatg gccgccttcg tcaagaagct 390

<210> 8313  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A11

<400> 8313

```
ccgggtcgac gggaacatcc agatcatagc ccacaccatc actaacatth agagcaacat 60
gtatgagtat atatccttca atatatagta ggcacatcta ctctatctag tatacaaaca 120
ttcactttac aacgtatcta ttgttgaaaa gcagctggaa atatatagat gcgtggagca 180
agttgtgcat aatatcacca tcactaattg ttgaaaagca actggaaaat tgtaatttaa 240
gaaacctcag agcattgatt caaatatcac ccatcatagc tcacaccatc actaacatth 300
agagcaacat gtacgagtat ctatcctctc aatatatagt aggcacatct actctatcat 360
acattcactg tacgacgtgt ctgttgctga aaagcaaccg gaatagatat agatgcatga 420
aacaagctgt ggacattgtg tggcga 446
```

<210> 8314  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A4

<400> 8314

```
gggtgcacgg ggtgcctgta ttcttgatc aggactggag gaggcacctg attgaggtgc 60
tggtgcagtt gaagtagaag atgcatgcgg tgtccatgat gaaggctcgg gatgaggaca 120
tgactacctt ggatatgacc aaaaatattg catatatgca tatttgtcag gtgatttcta 180
gtgcaaacta ttcaataatc tatttatgtt atccagaaca aaataacttca cacacttttg 240
tgttttgtct aattgcaggt gtatgggaca tttgtagaat ccacatatga agataaggaa 300
gaaagagatg tttatttgcg gtccaaaaag ttctctcacg tcacttttgg cccaagagaa 360
gatagagtcc aagtctctca cgttctggat tcagattcgg actgcacaga cacacctgac 420
tcaaaacgca cacaagttt 439
```

<210> 8315

<211> 372  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-044-Q1-E1-A5  
  
 <400> 8315

cgggtaccaa cagtcacatt caagtaccgg cagtttcggt aaccccagtt cctctctttt 60  
 gattgaacag aaataagatg acagctgggt acacataagt ctttccaatt ggcagtaagg 120  
 agctgagata aagatcacca caacgtgatc caaagaccgc aggtggcacc gcacgcgcag 180  
 cgggcgacgg caaccgccag ctaccgtcg ccaggcgga gcgagctagg cttccgcaga 240  
 gccgcaatga tcttccggca gcatgagact gncaggatgg gttgtggtgc tgggtggcttg 300  
 gcgagccaaa tcatgcctcg gatgcatgat gccaaccttg gccgggaaga agacangacg 360  
 acggcgccat tg 372

<210> 8316  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-A6  
  
 <400> 8316

ttcccggggc gacggggggc accaagaggg gacctggcta ccattactac tgcagttccc 60  
 gcgtggttgg aagatgtcca aggcgggttac caagaagatg cagaagctca acgcctactg 120  
 accaaactca ccagttcgcc ggagggtttt gatgggtttg tgctccagga cggcatcatc 180  
 cgccacaggg gacgagtgtg gctgggagca aatgtggctt tgcaaagaca ggtccttgaa 240  
 gcgttgca caaggcgtat cgggtgggcac tctggtttca atgccacgta ccggcgtgtg 300  
 cgacatctct tcacgtggcc gagcctgaaa catcacgtga agttattcct cgaagcgtgc 360  
 cagacttgca agcaagccaa gccagaaagg attcgttacc cgggattgat cgagcctctt 420  
 cctgtac 427

<210> 8317  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A7

<400> 8317

cggggataga tattgctcta gtgcttcact tataatctttt agagcacaac ggtggcttaa 60  
ttttgtagaa attgctagtc tatcatgctt cacttatatt attttgagag tctcttagaa 120  
cagcatggta tttgctatgg ttataaaatt agtcctagaa tggtaggcac ccaagttggg 180  
tataataaaa actatcatag gaagtgaatt ggatgctatg atcaatttga tacttgataa 240  
ttgttttgag atatggaggt agtgatatta aagtcatgct agttgggtga ttatgaattt 300  
aaagaatgct tgtgttgaag ttagcaagtc ccgtagcatg cacgtatggt taaagttgtg 360  
taacaaattt gaaacatgaa gtgtccttgg gttgtgcac cttatgagtg gcggtcgggg 420  
acgagcgatg gtcttt 436

<210> 8318

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-A9

<400> 8318

ccccgggtcga cgggcgcata gagtacaacg agttcgtggc gatgatgcag aagccggcgc 60  
tggggctggc gaagaaggcc ggggccgggc tggagagcag cttcagcatc ggcttcaggg 120  
aggcgctgag gatggcttga aggaggagga ggagctaggt ggtagtcacg gcgacgctaa 180  
tttcgttctg ctgctcgaag acgcttggtg tagagacatg gtgaggcgat tgagttttca 240  
tagggctgaa gtggcagcag ctccctggcg gtagcggagg gtcgggactc gggacaacat 300  
gtgtgtagta gaggcaggca ggcaggcccg gtgattttct tctcgctact ggattgggtc 360  
aattgtgtat tatactgagt ataaactaca gaaagctt 398

<210> 8319

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B1

<400> 8319

taccggtcag ctccgggtgc cggggagcac ataattgacg gcgagcacia ggagggcatg 60  
atggagaaga tcaaggacia gatcagcggc gacggccacg gcgacggcaa gaaggacggc 120  
gaccacaagg agaagaagga caagaagaag aagaaggaca agaagcacgg cgagggccac 180  
aaggacgacg acggccacgg cagcagcagc agcgacagcg acagcgactg agccagctcc 240  
ggccgcgctc cggcagcagc gtgcagtgtg ggcgagatcg atgaacgctt gggagaagtg 300  
tggcatacat atatgttgca gggtttgag cgtgtggtag catatgtatg taatgcgtga 360  
catgtctcat ggatcttggt atgtataata attagccggc tgcactgcac tgcacggtgc 420  
ttgtaataat aacgttaatg aatcatgttg gta 453

<210> 8320  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-B11  
<400> 8320

atgcccggt cgacgggtgg cgccaaggct gaggccaggt tcaagcagat aactgaggcc 60  
tacgaggtac taagtgatcc agaaaagcgt gcaatttatg accaatatgg tgaagaaggt 120  
ttaaagggtg tgctccacc tggttcgcaa agccggaccg ccacagcttc tggctcaagt 180  
gggccaagta atttccgtta caatcctagt gatccagatg atatctttaa tgagttcatg 240  
gcgagcaaca agccatacac ctttgatcaa gaccgaaggc gctttcaacc agcacaccgg 300  
acctcagcag tgaatggtcg aagtgaagct tcttccagtt ctcagaagga gcctggtacc 360  
agtacaagcc atctggaaaa gccaccgcct gtggagaaga cttactttg cactcttgaa 420  
gagctgtata atggaacaaa a 441

<210> 8321  
<211> 252  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-B3  
<400> 8321

ggttccattc tacctttcga gagcattgct cgggtcaactt ctttaaatgg cacagacaga 60

tgatcacccc gtgttcgcct gaccatgcgc tcaccttttc gacgcgcaat tctgcgaccg 120  
aagctgccat aatcatataa tggatgtagt taaacaaggg atatagggaa accaatttgg 180  
aagaaagggtg aatagatata gccagtaccg gtaattttcc cgggcggtaa atcacccaag 240  
gaaccagaac tc 252

<210> 8322  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B4

<400> 8322

acggtcgtag cttccgggtg cacgggttga taaaaattac tatagactat tctgtttttg 60  
acagattctg tttttcgtgt gttgtttgct tattttgatg aatctatggc tagtaatgga 120  
gtttataaac catagagaag ttggaataca gtaggtttta caccaatata aataaataat 180  
gagttcatta cagtacctta aagtgggtgct ttgttttctt tcgctaacgg agctcacgag 240  
attttctgtt aagttttgtg ttgtgaagtt ttcaagtttt gggtaaagat ttgatggatt 300  
atggaacaag gagtggcaag agcctaagct tggggatgcc caaggcacc ccaaggtaaaa 360  
tccaaggata accaaaagcc taagcttggg gattccccgg aaggcatccc ctcttttgtc 420  
ttcgtccatc ggtaacttta c 441

<210> 8323  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B5

<400> 8323

gggaggggaac atcggtagtc tctgccgagg tgaagcctcc agtaaagcag caagtgagcc 60  
cggcgccatt caaggctgcc gtggagaacg tctacatgac cgacgcgac acacgggctt 120  
ccaagatcat ggctcagtgc agcgcagcct tgttgaagag gtgagaccct gcgctaggta 180  
cgtcgccttg aggaagttga gtcagcggca gacgagagtt ttagttgctt ggcgagttca 240  
ctcaccagtt gtcgttgctt ggttggttgg gagcataaga tttggagtgc ctctacccta 300

gcgagatgcg gggagcagcg aaacgtgaaa gcagtgcacg tttctggaac gtgtgagaag 360  
 cggagcatatc ttagtaagct tgttttgtcc t 391

<210> 8324  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B8

<400> 8324

ttccgggtcg actctgacga caaaaatact tgggtgttgg actggatgac cgaaaacact 60  
 cattataagg caccggcctc tgaattactt cacgccctgc ccatcagtc tccacctgaa 120  
 ggagctcgtt gcgtgtacca agagcctgaa ttgactgccc attatatgca agtaattatg 180  
 aagcctctga agcctgggtc agctccaagg accaaattcc tcgtgaggca attgctctat 240  
 gtgccaagaa ctgtctatcg cattctgacg aagacaatga gtccgatcaa aggccacgac 300  
 tcgtctgata aggaaattgt tggcatcatg aagaatctgc tattcagtggt catacatgcc 360  
 attcctgtca actagcatga tttcttcatg aggactctgg aaaatgtcgc actctctccg 420  
 tttgag 426

<210> 8325  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-B9

<400> 8325

cgggtcgacg gggtagaaga gctttgtcaa ctttgtcaat atgaacgatt ctagctctag 60  
 tgaccgtacg atgtccatcc aacggccgta gtgcttcttc aacctctggt cttcttgctc 120  
 tagccgcca aagcagcgtt ggtcgtgccg catgctcctg cctcccggtg ccggctatgc 180  
 tgccgcagag gcctcaccgc cccctactat tcccaccgct ggccaggccc tacggcgacg 240  
 acagcctcac accgcagccg aaccagtga cctcgtact cctctccgcg cgggcttcca 300  
 ctgcgcgtct tccccggctc cgcgtcgtcc ccttcctagg cctcgcgctc gtccaccgcc 360  
 ggggtgctctc tgccgcggcat ggtcaacgtg gtcaaggaac gacttccatc ggaagagtac 420



<210> 8326  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-C1  
  
 <400> 8326

ggggtgcacgg gtagcctcta aggtaccgtg cattgccctt tctcaccttg agagttagtg 60  
 caaacttcgc cgggtgcatcc aaaccccggtg atacgatacg ctctatcaca cataaacctc 120  
 cttatatctt cctcaaaaca gccaccatac ctacctatta tggcatttcc atagccattc 180  
 cgagatatat tgccatgcaa cttccaccat catcatcatg acatacatta cttttgtcat 240  
 attgccattg catgatcatg tagttgacat cttatttgtg gcaaagccac cttgcattat 300  
 ttttcataca tgtcactctt gattcattgc accatcccag tacaccgccg gaggcattca 360  
 tatagagtca tatattgttc taagtttcaa gttgtaatct ttatgttgta atcaatagaa 420  
 gtgtgatgat catcatta 438

<210> 8327  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-C11  
  
 <400> 8327

gacgggagag atgattgttc atccaacaag agtgcaacaa gtatcaagcc gcatttgaga 60  
 gcgttgaagc acggcccgtg agtgggtctcg acgttgggga cacggtatgc tctcctcttc 120  
 ctagcccttt ccttgctacg gccatgagac ttcggccttg tatatgtttg catgttcaact 180  
 tgttgttgat catgtggtgt aggcatttca atctttggtg gcattcaagg cccggcacat 240  
 gacaagccat tcaactcttac gcattgttgg acgctcatcg acaattgccc taagttcaag 300  
 gaccaatacc gtgaactaca aaggaagaga tgactgaaga cagccaagtt cgccggagggt 360  
 ggagatggcg aggcgttgaa gaggccgagg ggcaagacca actccaaggt tgatgacata 420  
 cgtgatgcct cat 433

<210> 8328  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-C12  
  
 <400> 8328

```

ccgggtcgac ggggtgaacat aatttgtaat gctggcttct gccccatgct cctggatgaa   60
acatgtagat tgcaagcatt acatcttact agggggcttc ataagcctct gctatctggt   120
agtctgttgt tgtgggtata gggttatgta aaaaaactgc attttttttc cggcaaataa   180
gcatatagtc accgtcaciaa tttccaatag gaaaaggcca ctacaccatc tggcacctaa   240
tgacaaaacg aagttccaaa gacaacacca acaggtcttc acacaattgt gcctattggc   300
cacaacaciaa caaatgttga gaagtttcaa cctggtcatg aaatgagcac ataggattac   360
cagaccattt tccttcctca tcacctcct agttagggga gtatcaccaa agaact       416
  
```

<210> 8329  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-044-Q1-E1-C3  
  
 <400> 8329

```

ttccaccagn gaaatatcca tcatctcatc gaaagacggg acacctttgc ctctatcaag   60
tggtatcaga tttccagggt gctcggtagag attttacagt ttttcgtagt ttagatcgag   120
tctgttcttc atacctacag tccacgaaaa agccaaaaaa aaaaattacg gttagtcat   180
catatccgaa ccaatctgag cctttgcata atccttttag ggttttgctt tgttgaattt   240
gcggttgcat cgtcgtgtct agttgctggt cttaaagtct agtcttttag agtttcgagt   300
tctggtcata agttgtcatg ccgcccgcgc accatcataa tcgccctgc catctaccac   360
caccgcttat ccgccacggc tccgaatcc                                     389
  
```

<210> 8330  
 <211> 426  
 <212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-044-Q1-E1-C7

<400>      8330

```

ttccggccga cggggagggt gagaagctga ttggcaggat agtgaagtgg ctgaagcccg   60
gtgggcatat tttcatcagg gaatcgtgct tccaccagtc tggggattcc aagaggaaag  120
tgaacccgac gcactaccgg gagccgaggt tctacaccaa ggtgtttaag gaatgccact  180
cctatgacca agaggggaat tcctttgagc tttctctggt aacttccaag tgcattggag  240
cttatgtgaa aagcaagaag aaccagaacc agatatgttg gctgtgggag aagggtcaagt  300
gcacagaaga caaaggcttt cagagattcc tggacaatgt gcagtacaaa tccactggaa  360
tcttgcgtaa tgagcgcggtg tttggggagg gttatgttag caccggtgga ttcgagacca  420
caaagg                                           426

```

<210>      8331

<211>      445

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB104-044-Q1-E1-D1

<400>      8331

```

tacggtcgta cttccggggc caggggtgat gaaatcggag catgctttat ttattgattg   60
tcttccttat gagtggcggg cggggacgag cgatgggtctt ttcctaccaa tctatcccc  120
taggagcatg tgcgtagtac tttgtttcga taactaatag atttttgcaa taagtatgtg  180
agttctttat gactaatggt gagtccatgg attatacgca ctcacaccct tccaccattg  240
ctagcctctc tagtgccggc caactttcgc tagtacctta aaccatcat ataccttct  300
caaacagcc accataccta cctattatgg cgtttgcata gccatttcga gatatatattgc  360
catgcaactt tccaccattc tgcttattat gacacactcc atcattgtca tactactttg  420
catgatcatg tagttgacat cgtat                                           445

```

<210>      8332

<211>      421

<212>      DNA

<213>      Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-044-Q1-E1-D10

<400> 8332

gggtcgacgg gtgaagaaaa cgcattctgt caaggctgct cggcgcgaca agtcgggagc 60  
tgctgtgcga gaacggacct gagctgtgtg cgggtggtgtc ataaggagcc tatccatctc 120  
cactagaatt atcccaagtt tcacttcaca tcgtgatgtt gttttacctt tttcctgtca 180  
ttgtcctgct ataacggata gcgctccctg ttggcgccgc cgccggcggg gatgccctag 240  
tgggtggaggg tgtatgtcct cttccgcggg gtgcccctgc ttgtacctag atggttactc 300  
tttccgtcca ttgtcacggg ctaacattgt gataatatca gtctgggtaa tgtagatta 360  
anaaaanaaa nnnnaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaagcggccg 420  
c 421

<210> 8333  
<211> 250  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D12

<400> 8333

gggtcgacgg gtaacaccca cttactatgt ttttttttct taaaaatata aatcatgatg 60  
tttttttttt catatctagc aagcttcac ccatgttcaca ttgattgtca cccaccctcc 120  
tcgacctgag tacctagttt tctatactac gtctcggctc gtacttcagt tctagattta 180  
gattagttta ataaagtggg actagaaaac atcaccatcg catgcatgga caaaaggcaa 240  
aagcgacaag 250

<210> 8334  
<211> 429  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D3

<400> 8334

ggggcatctt gaaagttcta aaaaactttc catcatttgc cacactactg gttgcatatg 60  
aaaaacctac ccaagcacag cagcgtacag gagcgacgca caattacaag ctgatattct 120

gttgacaat ggaggctata accaattact tttacgggaa caatagcacc taggcaattt 180  
gatgggtagg tatgaacaaa attggaactg cacatgtact gctaagtgat tcaatacaca 240  
cattaccaat cgaggaggag aatgatggtc gcggcgccct ctgtgagtca tggtcggcaa 300  
aaggagtcaa ttcattgtcc acgacgggtg tgcttctgcg cttggcgctg gcttccggga 360  
agcagatccg agaccgtgga agacgggtgcc cgggaaaacg ctccgtgtac gacgaccacc 420  
gtggaccgg 429

<210> 8335  
<211> 200  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D5

<400> 8335

tactttaatg ctgactcgag cttagatgga aactttatca gtttatggac tatttgtggc 60  
acgagcgcta tttatttgcg aagcctttgg ttgaatctta gtggaagatt ctttcgagtt 120  
cgagtagata attttgtcgg ttttgaggaa gtttgagggt gcttcacgt gtggaactag 180  
atcaggacgt tatttagttt 200

<210> 8336  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-044-Q1-E1-D7

<400> 8336

ttccgggtcg accttcaatg ccaatgaaag gtactcttcg ggatcattgc ttccagtaaa 60  
tttgggcatg gtgaacttta gtttgccgta gcgttgctct tcattgtgtt ggggtcgagg 120  
gtgatgacga cttgacaag gaggattgtc tccctcaact tgctcttata atggagggtt 180  
gtcaacctca ttttgttctt ggcgaacttg aggttcttgt cgaggagctt gtggaacttg 240  
acgatgcagt cgagcttgat ggttcctctc ttgaacttcc tcgcgaagcg cttcttggtg 300  
ctcgcgctg tgaccgttgc ggtcggcgat ggcgcgactt gtttcatgga gggcacattg 360  
ggccttgagt gcttgagctt cacgtcgttg ttgttggtgt cggagcgcct cgggtgtctg 420

ct

422

<210> 8337  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-D9  
  
<400> 8337

acgggggtcat ttagaacaac atgggtatttg ctatgggttac aaagttgggtc ctagaatgat 60  
gagcatccaa gttgggtata ataaaaacta ccatagaaaa gaattggatg ctatgatcaa 120  
tatgatgctt gataattggt ttgagatatg gaggtagtta tattaaagtc atgctagtgt 180  
aggtgattat gaaaagtact tgtgttgagg gttgtgattc ccgtagcatg cacgtatgg 240  
gaaccgcttt gtgatgaagt tggagaacaa ttttatttat tgattgtctt ccttatgagt 300  
ggcggtcggg gacgagcgat gatcttttcc taccaatcta tccccctagg agcatgcaca 360  
tagtgctttg gtttttgatt acttctagat ttttgcaaca agtatatgag ttattttgac 420  
taatgttgag tccatgg 437

<210> 8338  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-E3  
  
<400> 8338

tacggtcgta gctccgggtg cacggggagg ttgaaaagct gattggcagg atagtgaagt 60  
ggctgaagcc cggtgggcat attttcatca gggagtcctg cttccaccag tctggggatt 120  
ccaagaggaa agtgaacccg acgcactacc gggagccaag gttttacacc aagggtgttta 180  
aggaatgcca ctctatgac caagatggga attcctttga gctttctctg gtaacttcca 240  
agtgcattgg agcttatgtg aagagcaaga agaaccagaa ccagatatgt tggctatggg 300  
agaagggtcaa gtgcacagaa gacaaaggct ttcagagatt cctggacaat gtgcagtaca 360  
aatccactgg aatcctgcgt tatgagcgcg tgtttgggga gggttatgtc agcatcgggtg 420  
gattccagac cacaaaacga at 442

<210> 8339  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-E4  
  
 <400> 8339

gggatgaaag aggcggagct caaatcgaag aaaaactaga caagatgcag cacaacgacg 60  
 atgataatgt cgactgcggc gttgggtctcg gatgtgtaca gaataattcc tcgctatcag 120  
 gtggtaataa cgcaccggaa cggacgctgt tcttgatgcg cggaatggca aggcaaagca 180  
 ttctttcacc gagcaatggt gattgacgac ttgattacag acaagataga tttggcacat 240  
 tcttacctgt aaagataatt tgccaaataa agccgtttat aagctttgcc actttgataa 300  
 tctcttgtagc tgacacaatt tgaaagaatt cctttgagat c 341

<210> 8340  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-E6  
  
 <400> 8340

tacggtcacc attccggctg acgggcgaca ggagagtgat caagcagagc gaccttggcc 60  
 tctatgtgtt tgcgtcgaag ccgtcgagcg gcgcggccat actgaggctg tagatcgacc 120  
 accgccggcc gtggccggtc acttgtagat gcacacatac tctcgaataa acgcgtgctc 180  
 gaggcgagca cgctgccatt agctaattta gtccccgccc atgcgtgtct gaatgtacaa 240  
 tgccagtaca atgtgtagta gttatcggtg tttattatgg gcgatctgac tgccacgtta 300  
 tct 303

<210> 8341  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-044-Q1-E1-E9  
  
 <400> 8341

gacggggagg gggagaaaca tcataagatc caagtataat agcaaagctc gcgatacatc 60  
aagatcgtgc cacatcaaga acacgagaga gagagagaga tcaaacacat agctactgcg 120  
acataccctc agccccgagg gtgaactact cctcctcgt catggagagc gccgggatga 180  
tgaagatggc caccggtgag ggttcccctc ccccggcagg gtgccggaac aggggtcccga 240  
ttggtttttg gtggctacag aggtttgcgg cggcggaact cctgatctag gtttctttct 300  
ggaagtttct gtatatgtaa ggggttttgg caccgagaac aagtcagggtg ggtctccggg 360  
ctgtccacga ggcagggggc gcgccccca cctcgtggg cagcccgga ctcttctggc 420  
ccaactcttt tcttctgggg gg 442

<210> 8342  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-F10  
<400> 8342

acgggtgtag ataacgtcga actcatcgcc ggtgatggtt ctaaccttgt actcaccgcc 60  
gatcgtggag atttgggacg ccatggattt gggaggaggg ttaggattag tggaactgcc 120  
gtaatgtgaa tggacgtgac gactaggagc aaaccacat agtattgaag gacgtgcggg 180  
gacgagtagg agcgaactgc cagcgtgcga atggcaggggt agtggctttc cattctccca 240  
tgatacgggc ttccgagagc ccttggatct gagatcgaac ggttgcatgg tgtgattcta 300  
gacctatggg tgaatatcct atcctgaagg gttattctgc aaattttcag caacttagca 360  
tgcgaccgtt tgatctcaga tctaagggt gccagtagcc cgtatcatgg tcgcgcctac 420  
cacgaccgtc gcg 433

<210> 8343  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-F12  
<400> 8343

cgggtcgacc gcgaaggaa gctcacctac ggcggctact ccagcatggt ggtggtgcac 60



gagcgcttcg tgggtccggtt cccggacgcc atgccgctgg acaagggcgc gcccctgctg 120  
 tggcgccggca tcaccgtgta ccccccatg aagtaccacg ggctgaacgc tcccgggatg 180  
 cacctcggcg tgctgggcct gggcgggctc ggtcacgtcg cagtcaagtt cggcaaggcc 240  
 ttcgggatga aggtgacggg gatcagctca tcgccgggga agaagcagga ggccctcgag 300  
 aggctaggcg ccgacggctt cggtgtcagc aagaacgccg acgagatgaa ggctgcatg 360  
 agcaccatgg atggcatcat aaacacgggtg tctgcaaaca tccccatggc ccctctcttc 420  
 gggctactca agcccaac 438

<210> 8344  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-044-Q1-E1-F3  
 <400> 8344

ccgggtcccc ggggagcaca aaaaggcgga ggagcacaag aagaaggacg gggagcaca 60  
 gaaggacggc gagcacaagg agggcatgat ggagaagatc aaggacaaga tcagcggcga 120  
 cggcaagaag gacggcgacc acaaggagaa gaaggacaag aagaagaaga aggacaagaa 180  
 gcacggcgag ggccacaagg acgacgacgg ccacggcagc agcagcagcg acagcgacag 240  
 cgactgagcc agtccggcc cgcgctccgg cagcgtgcag tgtaggcgag atcgatgatg 300  
 aacacttggg agaagtgtga cagacatata tggtgcaggg tttggagcgt gtggtagcat 360  
 atgtatgtaa tgcgtgacat gcctcatgga tcttgtgatg tataataatt agccggccgc 420  
 ac 422

<210> 8345  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-044-Q1-E1-F4  
 <400> 8345

tacggtcgta attccggggc acgggaaact aaaaatctca agtacatgga aggatcttac 60  
 agtagggtgt tgcaagactt ccaactgtga ccagctgcag ttggttcagc aaaaatataa 120

atctctggag catcaacagc aaaaatataa atctctagag catcaacaga aagaaaacga 180  
tagaaaatag actatttgag cagcagctgg tgcggtagtc tgagtagaga tttcatggta 240  
gcgaaggaac ttgccgtat aattgaggcc aacttcacag aaggatcaac acccgaagac 300  
aacaatctga atcgtatttc tcatagataa gatatgttgc taatcatctt aatgatacaa 360  
ctttacaatg agacattgta caaaaaacaa acaagtatct ttggagtctg gatgatgata 420

<210> 8346  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-F9  
  
<400> 8346

gacgggcata tacatacaga cagacaggag agctgccttc cgagccttgg aaaaaaggca 60  
ctgctgcctt tgctctgctc atatccggac tcagatgata tgaacatgga ttgcattgca 120  
gcaggcgatg aagaggccaa catagtctcg gacttttggg aaaccagaag aggttattag 180  
catgtaggag aagaggagcg tgtaaaggaa actcaaggca atgcttgtat gtaacataca 240  
aaaaataaca agttgtaaaa gcggcctcaa gttttcaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aggaaaaaaa aaaaaaaaaa 360  
aaaaaaaaaa aagcgggctc cccaaagggt tcaagctt 398

<210> 8347  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-G1  
  
<400> 8347

acggtoctat cttcccgggt cgccgggtcc agaactccct caatagcccc tgaactagac 60  
tttaatgatg atgtgttcgg cgtgcagatt gtcttcagca ttgcaaggca gggtctttct 120  
ccggatactc caatgcagtc ctccacacat aatagetgta tccgggtccg ttaaataatt 180  
acagccttaa gctgcaaggg taaaaatatt caaaacaaag taagtgcgat ccataagcaa 240  
tttttccgggt gaggcattat gtcttgacct tgtagtatt ctgaactgtt ttacaatcct 300

cgcttcgtgt tttgggttgt ggctaggaat taagttaatg gcaaacaaac cgtttttttg 360  
gcgtgtgttt aatttctaac cctaagcggc tgcattggtt aagcctgcaa cactgcacgg 420  
atgcatccat tacattcctt ggcttataaa atttc 455

<210> 8348  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-G10  
<400> 8348

cgggttattt gatatttttg tctttttttt caaaaatata ggagcaattt aagacatatc 60  
aaacccatgc ttcaacatga taaattagta gaaactatga tcaaactata gtagggggcca 120  
aaacctgctg attacatata attagcaact acaaattgtca tttaatgaca ttttcaacct 180  
tgacattggc acatatacta tgcacactag tagcaggcgc atctagacat cctcatcctc 240  
ctccgcggac gaaatatcat ccatccacac ataggggtcg gactcatgag ctgtagccac 300  
aatgtttgct cataatcgat ggtatctgag atgtatttga tgatgatgat gatttttctt 360  
ttggatgacg cttggcatga ccgcggcact gaggtgtcct gcgcattgga cgtacgtgaa 420  
gaaactcggg gct 433

<210> 8349  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-044-Q1-E1-G12  
<400> 8349

gacggggtag aaaaacgaat ttaaccctga cagagggaga gaaatacacg aagtgcgcat 60  
gtgtgattcc gatgcccaca gggaaatgag atatgtatgc gtgtgagaga gattgcacaa 120  
ttcattcacg tatcactatc tagcgatcgt ggacgtgcat cgcttgaaca taagtcaata 180  
tctacttcgt atcgtggcca aaggtacaat atcgattcaa cgctataaag attggacact 240  
cacatatcac atttttttct atttcaataa accttttcag ttgtgcatgc caaagttaca 300  
gtgatgtttc ttcaaacaac caatgtagct atcatgtata tgcaccattg ttactcttgc 360

attcaaattc attagtcttg gatgatttat gtttccattt tgaagtaata tatgtaatat 420  
tcatatatga at 432

<210> 8350  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-G2  
  
<400> 8350

tccggggcac cccgactaca cagagctggc attcgcggcc atgatgagga agaaggtcac 60  
gatgcccgcc cacttgatgt acgacgggca ggacgacaac ctgtttgagc acttcagcgc 120  
ggtggctcaa cggctgggcg tctacaccgc catagactac gcggacatcc tcgactttct 180  
ggtgcagagg tggaacgtcg ccaacctcac tgggctgtct ggggaaggga ggcgggctca 240  
ggatttcttc tgctcactgg gaccaaggtt caggaagctg gaggagcgag ctcagggcag 300  
ggcgaagcag ttaccggttg ttcctttcag ctggatccat ggtcggcaag tgcaactttg 360  
agtgcattg caaaacaatt ataagacgat ttgttcttct tattttcaaa atatgaagca 420  
actgttga 428

<210> 8351  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-G9  
  
<400> 8351

cgggcaaattg gaacggtatg attggaggta cctttatgca gactgtgatc ctggtgtggg 60  
ttaccgtgag gaccgactgg aacaaagagg tggccgaagc gaggaaaaga ttgaacaaat 120  
gggaaggcaa caagatgcct ctattagcag gccagaatg aaacagtgga tcctgtatat 180  
gatcaacgga aatgtggtcc gttcgcaagt tgatctccct aaaatgtgta aagtgcattg 240  
ttcatcgtgc aattcaccat tgaaattccc tacttccgtt ctgctattcc cgcttcgcaa 300  
gcacggtagc agcggcgatc ttgtcatggt actagcgagt aacgggattc tatggcgatg 360  
atagattagt gtggatgaga tcactttttt tgtgtgagat atcaatattg ttggactgca 420

ctaagggtac

430

<210> 8352  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-044-Q1-E1-H1  
  
<400> 8352

cggctctata ttcncggggc gacgggctgc cgcactaact gcggaggtga atgcactaaa 60  
gcagagcctc gaacgggtccg agaatgagct cggccttgcc aagaagtagc tccaggataa 120  
ggaaggtaag taatacctta tgaaagtagt accttataga aaaggatttg gttgcaaaaa 180  
atgacaagaa taacgtgggt attgcagggg ccacgaatga ggtggcgacc ctgaaggaag 240  
cgggtgtccaa ggtcgaaagc agtgcggcct tggagcgcac cgagcgagag aagcaggagg 300  
cgcggtggc cgaggtgagg caagagctcc aggctctcgt ggaaaaacat gagaatttgg 360  
aaggttactc cagggggccg agagtccgag cttgcctcgg ctcttgagag tggcaaagcc 420  
gcta 424

<210> 8353  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-H10  
  
<400> 8353

ttgaacgttt tattgctcga tgcactacat gtcaaaaagc taagtcacga ctcaataatc 60  
atggtttata tatgcctttg cctgtaccta gtgtgataga ggcggggtgt cccgatcttt 120  
cgatgagatg ataaccatcg atttggtgga gacgactttg acgatccgac tacaacgtg 180  
caacgacgtt gtgccttagc aatcgctaaa ccaactccga gaggttattg accacgctgg 240  
agcagcatca acctgaccac gaaggtctat tctgcaagc aatcgaagaa caagcaagaa 300  
tatgataaaa gcaatctgaa tatcggaat atgtatgaag tattgataat ggtggggatc 360  
cgaaaagtgg tcttggtctg gtcgttgga acaaacgaag cacacgaagt tgcaatggct 420

aacttt

426

<210> 8354  
<211> 349  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-H2  
  
<400> 8354

cggggtgcacg ggtccgtatg agtggggaaa caagagatag tgttgatttc ggacccctcc 60  
accaagggcc acgaaattcc cccctcttcc tccatatata cagcccttag ggcacgttt 120  
agaccttggg atttgtttag ttaaaagtta gccattgcaa cttcgtgtac gtcgtttgtg 180  
tccaacgacc agaccaagac cgcttacgga tctccacat tatcaatacc tcatatatat 240  
ttgcaatatt cagattgctt tatcatattc ttgctcgttc ttcgattgct tgcaggaata 300  
gaccttcgtg gtcaggctga ccgtgcttcg ggcacgtca gtaacctca 349

<210> 8355  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-044-Q1-E1-H6  
  
<400> 8355

cggggaatcca tagagaagct agcacgctcg gggacacgca attttttgtc agatgtctaa 60  
gggggcttgg tttggatctt cattttgttt ttcccttgtt caaatttgtt taggttcttt 120  
cggccactgc catggttggc attggcaatg ctggttgatt ggtttggatt ggtttgtgag 180  
aggggcaagc gatgagcaaa gataagggtc gggctgagct ttcctaagga gaggagagct 240  
tactggagc ccaattccgg tgcccaaagc gagcacattt cctgtgagaa attcacccca 300  
aatctgcact gtttttggtg cgccatagtg gtggatgcca tcttaagttg catatggtga 360  
gatgctagct gttggatgca gtagtagcac tgaaaggctg ggggtttggc cattgtttat 420  
agagccaaga aga 433

<210> 8356  
<211> 385  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-045-Q1-E1-A1

<400>       8356

cggggtatttt gaatttcaag gaatttaatt atgataattg atctttaata gattgtattt   60

ccttgctgca atccgtgttg aattctcctc atgcttatag ccaaaataaa gcttttacta   120

aacatatcgt tgatgctttg atgcaatctt atgaagaaaa acttgaatta gaagtttcta   180

ccctagaaaa ctttatgatg agtgggaatc cactattaaa attaaaaata aaaatcatga   240

aggctatgca ttgtgtgatt tgggtgctag tgtttccacg attccaaaaa cattatgcaa   300

tgtgctaggt ttccgtgaat ttgatgattg ctctttaaac ttgcaccttg cggattccgc   360

cattaagaaa cctatgggaa ggatt   385

<210>       8357

<211>       156

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-045-Q1-E1-A10

<400>       8357

aggagacgtg gttttgttcc ttccagttt tcaactaggat agagcacttt catttgcagg   60

ctatttttaa cagcattgtc tcccaaatag aacagccaag tcacattctt tgcaatttat   120

ggattcacat ttacacctat ttttcacagc ccatgt                                       156

<210>       8358

<211>       257

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-045-Q1-E1-A12

<400>       8358

ctcatggggc acttatatta ttttgagagt cttctagagc agcatggtaa tttgctttgg   60

ttataaaatt actcctaata taatgggcat ccaagatagg tataaaatta gtcctaattt   120

tcatataaag tgcattgaat actatgagaa gtttgctact ttatgattgt tttgaggtat   180

gaagatggtg atattagaga catgctagtg gagtaattgt ggatttgaga gatacttgtg   240

ttaaagtttg tgattcc

257

<210> 8359

<211> 262

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-A2

<400> 8359

gtattttgaa gcaaatggca tttaattagg atactttatc tttattagat tgtatttcct 60

tgtctcttcc cgtgttgaat tctctccatg cgtatagcca aaatatatct tttaacaagg 120

gtggcggttg tgctttgctg caatcttatg aagaaaaact tgaattagaa gtttctactc 180

tacaagaatt ttataatgag tgggaatcca atattataat taatattaaa aattattatc 240

gatatgcatt gtgtgatttg gg 262

<210> 8360

<211> 280

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-A5

<400> 8360

catcttcgat gaggaaggcg ggcggccgga cgccatcatg atcctgacgg tgaagcgcgga 60

caacatctgc agcttcatct cggagaccaa ccccgggcac gtgcgggggt gggagaccaa 120

ggacagccag ctgacgatgg tggcggacca cctgaagccg cgggcggtgc tgatgtgcc 180

ggagaacaag atgatccagt aggtggtgtt cgccagctac gggaaccgcg tggggatctg 240

cggcaactac acgtttggta cctgccacac gcccaaggcc 280

<210> 8361

<211> 350

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-A8

<400> 8361

cggggaaaaa tatgatgaat gacaaggcac tggttcgcaa cttagctgca tgtgaaacta 60



tgggctcagc taccaccatc tgcagtata agacaggaac actaacacct aatcatatga 120  
 gtgttgtaa gacctgcatt tgtggaaata tcagagaggt taacagtcct cagaatgcgt 180  
 ctaagttgtg ttcagaactt ccagaaaatg ttgtcagaac tcttctcgag tctatatatta 240  
 ccaatacagg tggtagaggt gttattaacc aagatgggaa acaccagatc cttggtaccc 300  
 caacagaggc agccatattg gagtttgcaa tgtcaatagg tggaaacttt 350

<210> 8362  
 <211> 275  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-A9

<400> 8362

atttgcctga cttctggcac gtttggcagt ttatcacttt tattcaccaa cgcagactct 60  
 agattcatgt gaaacttgct acacactcag ataccttggc atggggccat ggttttttca 120  
 gcagttaagg aatgttcaac gagtttgaca taatgttcac acacttacia ctttttcggc 180  
 acttattcga tgttctgggt tcaaaagtct aacctatcca cagctccatg ttgggggaaa 240  
 ctccccctgg attggtcaca gttttttcgc cattt 275

<210> 8363  
 <211> 325  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-B1

<400> 8363

catctacgtc gagcccagg accgcaaggg ggtcttctgg tacagcaaca agttctagcc 60  
 gtcaagatcc atcaacggtg ctcgagaaa aactcagaga agagatccga ccaagtaatt 120  
 ccatccatct acctacagtc atatggttag tcttttagata gcagagggca tttgggcaca 180  
 aaagaagacg actattaccg tgccagtgtc agaagagctg agtggtgcaa ggaagagtag 240  
 cgtgtccgtg acttttggtc gttccgtcgt tactttttct ctgtgttcca gtcgtcggct 300  
 taagtttggg cggctgtcgt cgtcg 325

<210> 8364

<211> 391  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-B10  
  
 <400> 8364  
  
 gggggcgtgc tatgtgctaa tcacgataga ttcggtcggg cccgcgtcgc ctctgtgtcg 60  
 actgtcgtcc gcaatgattg ggtcggggccc cagatgacat ggggtgggtta gcgtcgccgt 120  
 gcagcatcca ttctaagtta gtcccacctc ggtcgccgaa ggatgtaccg atcagtttat 180  
 atagccgcct ccggtattcc atgcatggtc atatcttaaa ttgttatata cctctatata 240  
 tctgctccgc aatacactat caggcaatga actgccctgg cagttaggta aagtcattat 300  
 acaatattaa atatgtttac tttgtcatTT tttttaacct tccaactgtg aaacattttt 360  
 tttgaaatat tgcctcccaa caccattttt t 391

<210> 8365  
 <211> 192  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-B12  
  
 <400> 8365  
  
 aagctagtat atgatgatca tgaaaacgac atcctccttg ttggagatga cccatgggag 60  
 gaggtttgta gctgtgtgaa gagcatcaaa atattatcat ctgttgaagt gcaacagatg 120  
 agtttgatg gcgaccttgg cggtatccct tcacaaacac aagcctgtat tggttccgat 180  
 gatgcaaatg ca 192

<210> 8366  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-B4  
  
 <400> 8366  
  
 agccgcgcac gagatccagc actcgagggg atcaacccta ggcgcgggat gcgggtgatc 60  
 cgcctcgtgt aagaggcgaa cctgtcgccc ctcatggtgt acttcatggc caacaacgcg 120

tgcttgacctg accacttata tgcacaccac gacaagcccc tcgaggagac agcagtccca 180  
 cgtcttgacct tgatctgatt tcgttggcct gtgggtcaact ttctagccca tcgatacatt 240  
 atttttttcc attacattgt tgccgttcat atcgcttagc ttctgcctcg gttcgttgct 300  
 tcattcagaa ctatgcctct tggtcgcatg ttcttctcaa tgcctgccc ttca 354

<210> 8367  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-B5  
 <400> 8367

gggaggacgg agacgggtgca ctctgacaag atcacgggtgt ggttcaagaa gctcagctat 60  
 gggctcagcc aggagcaccg cgaccccgctg ctgggtctgc gtcagggtat acatgggctg 120  
 caccaccatc cagctcgacg agctcgccgc cgagaccgcc gccgcgctca cggcctccca 180  
 gcctgactat gcctccctcg cggcgaggat tgttggtgcc accctgctgc caagtgggaa 240  
 tactctgtgt ggcgcttgct agtagagagc attctggtac aaaggtacac gaactaatag 300  
 ggaaacttct gtcattttct ttgggtctctg atccataaat ggtcc 345

<210> 8368  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-B7  
 <400> 8368

acatcgacaa cgaaaagaag cataatgctg ggacaaacaa agctgctcat agcaccacat 60  
 cgctcaatac aaagaggctt gatgatgata cagagaatct tgctcatgag cgtgtgccgt 120  
 cggagctgaa gaagagcatt atgcaggcta gaacggacaa gaagctcaca caggcacagc 180  
 ttgcacagct gatcaatgag aagccacaag tcatccagga gtacgagtca ggcaaggcta 240  
 tcccaaacca acagatcatc ggcaagctgg aaagggctct tggcacaag ctgcgaggca 300  
 agaagtgaag ctgcgtgcat ctgacaggag tcgagtcttt caagagagga tcttggctgg 360  
 gcaagtttac cgctaaataa agcttgtcta cttaatcatg cgact 405

<210> 8369  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-B9  
 <400> 8369

tcattctcatc ggaagacggg acacctttgc ctctatcaag tggatcaga tttccagggt 60  
 gcccggtgag attttacagt ttttcgcagc tttgatcgag gctgtgcgtc agacctacag 120  
 tccacgaaaa agccacagaa aaattagggt tagttcatca tatccgaacc aatctgagcc 180  
 tttgcataaa ctttttaggg ttttgctttg ttgaaattgc ggctgcatcg tcctgtctag 240  
 ttgctgggtct tagagtctag tcttttagag tttcgagttc tggtcataag ttgtcacgcc 300  
 gccgcccac catcatcatc gcccggtcca tctaccacca ccgcttatcc gccagcgctt 360  
 cgaatccgta tccatatacc accacagct 389

<210> 8370  
 <211> 299  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-C1  
 <400> 8370

ggagagcaag caggacggta agaaggagc agtcgccgtc ccggacgcca aggggaatgg 60  
 gacggcgacc gaggaggctg ccgggccgat caaacacgat ggcgtgggcc ataacgaggt 120  
 tgtccccgat cgggacgac gtgtggcatc gacgagcgac accatcatcg tcgtcgagga 180  
 gattaggaat ggccatcccg tcgagggtgc gatcgcgctt accgtcgagg cgggaagaga 240  
 ccgtctgcgg tgcgaggatt atgaacggtg gtcgggtccat gcgaatgaag acgacgcgg 299

<210> 8371  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-C10  
 <400> 8371

tcaccacagg ctaatgtgtt ttgcttggag cgtctttatt atttgtgtct ttgcttgta 60  
 gtttgccaca atcatccttg ctgtacacac attttgagag agtcatacat gatttagaat 120  
 ttgctagaat actcattgtg cttcacttat atcttttgag cttgatagtt ttgctcattg 180  
 tgcttcactt atatctttaa gcttgatagt tttgctcatt gtgcttcaact tataatctttt 240  
 gagcttgaaa tttttgctct agtgcttcac ttacatattt tagagcacgg tgggtggcttt 300  
 gttttaaaga atacattgat ctctcatgct tcaacttagat tattttgaga gtcgttaata 360  
 ccatggtaat ttgcttaatg tcaaaatact tgggtattcag gatatatgaa acttt 415

<210> 8372  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-C11

<400> 8372

tcaagttcac ggcattgcca actacctcgg attcaaggtc taaacgcgca tgcataatgca 60  
 tgcattgcaac gcctgcccc tgtacatgag ataccgatcg aggtaaacgt aatgtgtgta 120  
 cggaacgtgt gatgactgat gcttgcatga ttgtttgcac ttcgctgctc cgttatcacc 180  
 ctctgttctt ttctggagtt ctcttttccc tggtaaataa ttaagtgtat gttgtgagtt 240  
 gtgacattga ttaactggaa aatgtatcat tcagatgctc attaactgag tccgcgttgc 300  
 taatactact ccattatctt atgctc 326

<210> 8373  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-C12

<400> 8373

gaaatataga taaataatat tttagtgctc atactttcac tgcacacaca acaactatga 60  
 gatggttgta tcttcacac tacatgcatt ataggcagtt cccaaacaga atggtaaagg 120  
 ttatactcc cctcctcca caagcatcaa tccatggctt gctcgaaaca acgagtgtgt 180  
 ccaacattca atgggtcaca gggggagttt tctttaatta ttttgatttg ctttgatctt 240

tttggatcat gggactgggc atcccgtta cgggccctt ctcgtgaatg aggagcggag 300  
tccactcctc ttgagaataa cccacctagc atggaagata taagtaacct tagttgcacc 360  
tgagctgctc cagcatataa cacagaattt catttga 397

<210> 8374  
<211> 324  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-045-Q1-E1-C3  
<400> 8374

tgtttttttt tttttatttg taggggttgg gttttttttt taatctattt ttttgatata 60  
tcttctttta tggggttttt atgatgttat ttttttgttt ttttgttttt ttttttttct 120  
tttggttttt tttttgtttt tggttttttt tttgtttggt gttttttttt ttcttttttt 180  
tttttttttt ttttttgttt ggatgatttg ttcttttttg tttgttggtt tgtttttctt 240  
tatttttttt tctttttttg tatttgtttt ttttttggtt tttttgtttt tttttttttt 300  
tagtttggtt tttcttttgt tttt 324

<210> 8375  
<211> 245  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-045-Q1-E1-C5  
<400> 8375

cgggcccaa cagagcgtca cagcaagta tcgagtgtcg tgtaggacaa ccatcgactg 60  
catgtggcca aaaaaattta tgtatgaaag ggttgtgtaa tgttttgaat aacaatttgg 120  
cgagtcta atgtggcatcgg cctgcctaac aaaacggcca acccacacca tggctcacia 180  
ctcgtactgt actacgacct agccaccacc cccacacgca cacaccacaa cagcacatcg 240  
taaca 245

<210> 8376  
<211> 261  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-C8

<400> 8376

cgggaaatcat tatgtatttc tacatctgct atcacgctcg cagccagagt cacaactaat 60  
gtcaaccaag ccatagccta tacttgactt gcagttgcac atgtaagctt ccaggcatga 120  
ggtagtcttc cctctctttg agtcagggtg aagctttccg caagatgtca tggcgctctc 180  
ccatgcatcc cggccatcta ctggtttctc cagggtgctc gtcaaccgtc cttcacccat 240  
tactctctag tgaactcttg t 261

<210> 8377

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-C9

<400> 8377

caacgcacac caggtgttcg acgtaatgtt tgcacggctg tcggtaaaag aaaatcactt 60  
cgatccatat accgtttcaa aggttatatg cgtgttccat cctaagcata cttatagtct 120  
tttagatata acttttgtga tatttttagct taagcattag cataggactg gccactgatt 180  
attgcagttt ggaaatatgt tgaaagaaaa ctttactgtc aaaaaaccct ccaaataaaa 240  
taggatgcat tgttaaattg actgtgcctt aacccttggt tggataaac ttcattggatg 300  
a 301

<210> 8378

<211> 181

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D10

<400> 8378

ttgggcctaa gggaatgcat tgtggagtag ttattagatg atgggttgct agagtgcacg 60  
aagcttaaac cctagtttat gcgctattcc gtaaggggct gatttggatc cacatgttta 120  
atgctatggt tagattttat ctttaattctt ccttcgtagt tgcgatgctc gtcagagggg 180  
t 181

<210> 8379  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-D11  
  
 <400> 8379

cgctgaagcg gctgctgctg aaccgctgt cgccgcagca ggcccgcgag cggaagaagg 60  
 cctacatgac ggagctggag gtcaaggcca aggacctga gctccgcaat gccgagctgg 120  
 agcagaaggt ctccaccctc cagaacgaga acaacacgct ccgccagata ctgaagaaca 180  
 cgacggcgca cgccgggaag aagccgagcg gcggcaaggg gggagacagc ggcaagaagc 240  
 accaccacca cttcggcaag ggctagtatc aagaccgagc ttctctgctg cgacgatggg 300  
 tgctacgaac caccacaagt ctgcccattc gaccattgtt aggacactgc tgttgttgtt 360  
 tgctgccgca gtttgacgct tggcttgtct tcttcttttt cactcctctc ttctccac 418

<210> 8380  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-D12  
  
 <400> 8380

acatcttgtc aaggctgtc cgccggacaa gtcgggagct gctgtgcgag aacggacctg 60  
 agctgtgtgc ggtggtgtca taaggagcct atccatctcc actagaatta tcccagttt 120  
 cacttcacat cgtgatgttg ttttaccttt ttctgtaat ccggtggata cctcccccg 180  
 ccgggctggc ctggttacc tatgccattt gttccggtgc aagggtacgg agctccacct 240  
 ggtgcgtaac ctacccccg aggtattgct ccaactcggt tgtcactaga acattaccaa 300  
 gttaacgtgt gctggttatg ccgtcgatga tatatacacg aacaaagtct tcaaagaaag 360  
 gaaaaaaagg taagggtggt ggcttc 386

<210> 8381  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-045-Q1-E1-D3

<400> 8381

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt ttttttggtt 60  
tttttttttt tttttttttt ttttttggtt tttttttttt tttgggtttt tttttttttt 120  
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 180  
ttgttttttt tttttttttt tttttttttg tttttttttt tttttttttt tgtgggttgt 240  
gttttttttt gtttggttgt tttttgttgt tttttgttgt ttgttttttt ttatttttgt 300  
tatttttgtt gtttggttgt ttttttttgt tgtttttttt tttttttttt ttttttgtgt 360  
tgtgttttgt tttgttttgt tttttttttt ttttggttgg tttttttttt 409

<210> 8382

<211> 224

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D4

<400> 8382

tacacaccta cctcggctta gacctttgaa cgtcgggccc gtaggtttca cgggccagag 60  
ttagaaaagt agtttccttc tactactaaa cattgggtctc acgggggtttc gggcgagtag 120  
agggtctttt ggcgcttcgt ttgatatttt gatacagaag cagtcacatt tagtgcactc 180  
atcagctttg aggtttggtc tatactgaca gcggtttact ttga 224

<210> 8383

<211> 297

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D6

<400> 8383

cgggcacaag catgtgtttt gcttgaggcg tcattttatt ttattttgtt ttgcttgctg 60  
ttttatttta ttttgttttg cttgctgttt gtatagcata ccaagatctg aaattcgggg 120  
gtgttaaata ttcttcagat atttacttaa ttattcgatt acacattgga tattaacgat 180  
atgactttcg gactagtgtg tcgttgctgc tagtgcactg actcatatct ttttataaca 240

ttgtagttgt cattatttat gtagaaataa gcataatgct catgcttaaa ctagaat 297

<210> 8384

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D7

<400> 8384

acgggcacaa ttaacttccc cttcgtgctt accgaaggat gattgctatg atgattgtta 60

tgatcccggt gattctcttg aaatatccct ttttgatgat gcttgctatg cttgtgggcg 120

ggatgccaat atgaattatg cttatggaga tgaacttgct atagttcctt atgttaaaca 180

tgacattgtt gccattgcac ccactcatga cagtcctatt atctttttga attatccaaa 240

ctacgctaga tcagacaagt ttgtgcttac taaggattag attgatgggt ttcgtttta 299

<210> 8385

<211> 175

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D8

<400> 8385

acgggatcaa tgaagttact gtcttgcttt tctcttcga tcgttctgtt gcataacttat 60

atgttgctta tgtattgtct gtgatttggt acgaacgttt cgtttggtta gtgcattggg 120

gtgctgctgt atgtcgtgtg taatggtaat gttcgcgggtg tctacgacga ctggg 175

<210> 8386

<211> 308

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-D9

<400> 8386

tatccatcag gcaaggatat gatttggtat gtatatgtgt tggtatgctt gtcgaaagta 60

ttttcatatg tgtgtgtata tatatatgtg aaattgaatg aatttaaaaa aaaacagaga 120

aaacatgggc tatacatgct ctttgccgtc tgctgggtaca cagcaaagag ctttgctgtc 180

tgctggctga cagcaaatat gccatgtgtc agctacctgt ccaacttggg gcaataagct 240  
 ggctatttgg atgccttgtc gttaactggc aaacggcaaa acacgccgtt aaccactaa 300  
 ccgcctgt 308

<210> 8387  
 <211> 237  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-E1  
 <400> 8387

cggtgaaag caagtacgaa atcgggtcct tcatgtcagc cacgctaagc tgcgaccacc 60  
 gggatcatga cggtgccatg ggtgcggaat ggctaaaggc attcaagggc tacctcgggg 120  
 accgatgac catgctgtcg taagagttct ttttctctgc tgtaaatacat gatgatggga 180  
 gcagtttttc tgtgtagctc tcacaaatat agaccacact caccacgcct gattttt 237

<210> 8388  
 <211> 227  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-E10  
 <400> 8388

atagtcctca tcagagatct cgaggactcc acatagtact atccgagcct taacctggag 60  
 caaacttcaa gtttttagga cttgggttgaa catagggggg gtgtccttac atgatttaac 120  
 catgaccact atttcgttcg ccaagaaaat ctttggcgac aaaatgcact gaagactcga 180  
 gctgtcccat tgaactgttc cgatatgttg gcattcgggg aaaattt 227

<210> 8389  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-E12  
 <400> 8389

ctgggtgcaa tcaggcacga gctcctcagg aagaacgtgt cccgggtgga cctggagacc 60

ggccggaacg tggagatgcc cggcctagge accaacgcgg agcagctcgc caagtctgca 120  
aagcacctgt ccgacgagcg gggccggcgc aaaaagggtgc ttcaaattaa ctaacagctg 180  
gcaggccggc tcgctctact ttgttgagtc ctgctcgttt ggtggatggt ttccattcag 240  
tttttttctt cttgtacaca gtgatgtaat atttgtacag ttatgtaata atactgtgcc 300  
acatttgga aatagattaa ggggtgtcca tgttttgccg gagcaagtgt tgattaaaaa 360  
aaaaaaacca actct 375

<210> 8390  
<211> 222  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-E5

<400> 8390  
cgggattaac caatattcta ttattcttat tctgttgga tcttggtaga acctacctta 60  
ttggggtttt ctaatgttac cttatttat ttataactt atctggtgag tatttttagg 120  
ggtgtgctta cgttattgtg tttctgaatt tggatgatt tgtggtgtc tctttggttc 180  
gtttgttgta ttttttcgtt ttagttattt ttgttctttg gt 222

<210> 8391  
<211> 252  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-E7

<400> 8391  
acatctcgaa gcaagccgac gccgacttcg tgcgccctga gctccggcag tctctctagg 60  
ctgcgccctt gcacctagt taactaagct gcgccgggcc ggtcggggcc cggcaggagg 120  
gttggttttt gatggatgga cattcatgga ctgtaatgta tgtgtgcgac tagctggttt 180  
gaactcgtga gctgctgctg ggtatagtga gtcgtcttcg tttccagagt aataaagttg 240  
gttcgtccgg tc 252

<210> 8392  
<211> 317  
<212> DNA

<213>      *Triticum aestivum*  
 <223>      Clone ID: LIB104-045-Q1-E1-E8  
 <400>      8392

acgggggcat caacgaggag gatgaggatg gtggatatgt tgcgctggat ggtggagcag    60  
 ccgaccagcc tcaacttgac cgtgcctcta gcaacgaagc atgcgcgagc atgccgcttg    120  
 ccgctgggtga tgatcaagcc aaactctcca gtcggccact cctctatcca aaattgccgc    180  
 ctccacagag ctgcgcaatt cgcccgttgc tctcttggcc cgatcttgca tctttaactt    240  
 tgctttctctg cttgtttact ttttgaatac ctattcgta aatttgcgca cttccacca    300  
 gtggggtgtg tatatat    317

<210>      8393  
 <211>      254  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      unsure at all n locations  
 <223>      Clone ID: LIB104-045-Q1-E1-E9  
 <400>      8393

attgtttctt tctcgcccc acttttggcc tattgttatg gactggttga ntcttgttgc    60  
 ttttggtgat tacatgttcc gtttgctgat gtttaggatg tcaatgtatc ttgatctcgc    120  
 cgaactaatg attggaagca tgataccctt caacgtcgtg tccataatgg cgttgattat    180  
 ttcatattta tgcatattta gtaagatgat gcacttttct gggaagaaac atactttgat    240  
 ttttggtcga tatc    254

<210>      8394  
 <211>      226  
 <212>      DNA  
 <213>      *Triticum aestivum*  
 <223>      Clone ID: LIB104-045-Q1-E1-F1  
 <400>      8394

gagatctcaa tgaaagagat ttcggtctgg ttaaggtaac gcaagttatg ccagtttgtc    60  
 gagtctagcc ttgtaaagc cgggccctcc gtatgtggga attcaaccg gagggacgag    120  
 gagctattca acatttcctc ggcattgatgc tcgaacaaat gtacaaatcg ttctctggac    180

cccaaataaa gtgtccggat acctctaagg acgtggggtt gagctg

226

<210> 8395  
<211> 365  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-045-Q1-E1-F4  
  
<400> 8395

gggggttggt ttttttggtt ttttgggttt tttttttttt tgttttttgt ttgttttttt 60  
tttttttttt ttgttttttt tttttctttt ttttttggtt tttttttttt gttgtttttt 120  
tttttttttg ttttgggttg tttttttttt ttttgggttt ttttgggttt ttttgggttt 180  
tttttttttt gttttttttt ttctttgttt ttgttttttg tgtctttttt tcctgttttt 240  
ttttgttttt tctgtttttt tttttttctt tcttgggttg ttttgggttt ttgttttttt 300  
tttttggttt ttcttttttg ttttgggttt ttttgggttt ttttgggttt ttcttttggt 360  
ttttt 365

<210> 8396  
<211> 311  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-045-Q1-E1-F7  
  
<400> 8396

acgggtctaa ccaacaggcc caataaggcc catatacctc cgggggggtt cgggtaacct 60  
cccgggtactc cgggtatactc cggatttcac ccggaaccat tacgatgtcc aaacataggg 120  
ggcgagtata tcgatcttta cgtctcggcc atttcgagac tcctcgtcat gtcggtgatc 180  
aaatcctgga ctccgaacta ctttcggtac atcacaacag ataagatcat aataccgatc 240  
gtcagcgaac gttaagcgct gcggatccta cgggggtcgag aactatgtag acatgaccga 300  
gacatgtctc c 311

<210> 8397  
<211> 151  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-F9

<400> 8397

tccgtaggtga ttatgtgatg ctgaagtatc aatgatccca ttccacgttc gggttcgtgt 60  
aatgcatgca tgcattgtaca ttcaattcgt tcactttcaa ggtgtatgat ttggactagt 120  
atttcacgtc gttgtttcga aatctctcaa t 151

<210> 8398

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G10

<400> 8398

tccgccattt tgggggatca cgagaggttc ttggtccggt tcggagagac cactgtagct 60  
ttcagaaggg cgggcccctg ctgtccgcag gcatgagtgt gtatacgccc atgaattatc 120  
acgggctgaa tcgctcccgt gatgcaacgc ggcatactga gcctgggggg gctcggtcac 180  
ttctacgtca atttcagcaa ggccttcggg atgaacgtaa cggatgatcat ctcacgcacg 240  
gggaagaatc acgaggtcct cgataggcta ggcgccgact gcttcgttgt caccagaaag 300  
gccgactaaa tgaaggctgc gatgagcacc atggatggca tcatacacac ggtgtttgca 360  
aacatcccca tggtcacctc cttcgg 386

<210> 8399

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G11

<400> 8399

ttggagaaga acccgcccttg caatgccgat gacactctga agggcaagac tcagcttcat 60  
tgaatcctgg ttccgggggt actgaggag tcctggatta ggcggtcctt ggacagccgg 120  
accatatacct ttggccggac tgttggaacta tgaagattca atattgaaga ttttgtcccg 180  
tgtccgggtg ggattctcct ttgcatggaa tgcaa 215

<210> 8400  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G12

<400> 8400

```
cgacggggta gaataggggtg ctatagctcg aagatgggaa ggcaggagaa ggaagaaggc 60
atgagaaaag ggaggaatct ttatcctctt atataggcag tgtatatcaa acgccccccg 120
gccgcgccgc tcaagcctta aaacttgccc gttcccatgg ggtcgtgcga atggcatggc 180
tatattaccc aaaccgtatt gatgaggatc ccgcaataag tggacacgat ctccattttg 240
acaagacatg taaatagagg ccgcgcctcg agacgctaag cgggaggcga aaaacgggtcc 300
gaaatgctaa agaggccaca tgtggcgctt cgccgaaaag ttgtgagttg acgggcatta 360
ttttg 365
```

<210> 8401  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G3

<400> 8401

```
acttacgcgt tcattttttc tctttttttt tctttctttt tttttttttt tttatttttt 60
tttttttttt ttttttgttt ttttttttct tttttttttt tttcttgggt ggtttttttt 120
ttttttttct ttttctttct ttttgtcttc ttttttttct tttttctttt tttttttttc 180
tttttttttt tgtttttttt tttttttttt tctttttttt tttttttttt tttttttttt 240
cttttttttt tttttttttt tttttttttt ctctttgttt ctcttgcttt ttctttcttt 300
tttttttttt tctttttttt ctcttttttt tttttttttt tctttctttt ttttttcttt 360
tttttttctt ctctttcttt tgtttttgtt ttctcttttg ttttgtgttt tttttttcta 420
ttttttttta tgtttttctc tgtttttctt tctttttttc ttt 463
```

<210> 8402  
 <211> 99  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-045-Q1-E1-G5

<400> 8402

tcagtatcaa tatttttata ctatattacg gtgggtgtatt gccgaaatgt ctgttaagct 60

gatttttgtt tcagttatat atatctttat ccctctcat 99

<210> 8403

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-G6

<400> 8403

gtgtagggat tgccatgtaa cgattgcact agagctatga atgctcaaca gaataaaact 60

agtgagtgtg catccaactc gcttgctcat gggggcctag ggcatttgag gaagcccatc 120

ttaggaatat aactccaag ttccataatg aaacattccc actagtataa agcgacaact 180

tatgagactc actacatgaa taacaagggtg ctattttgaa tcacattata tgagattcac 240

tacatgaaga acaacgtgct actttgaagt acatgtgttg aagctacata ctagcattgc 300

cccttttttt tcgttttttg gccttttttg gcctttcatt tttctctgtg ttgctt 356

<210> 8404

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-045-Q1-E1-H1

<400> 8404

tagttcacac tcagggctaa ggtatgtacc agtagctatg tgtttgatct ctctctctct 60

ctctcgtgct cttgatttgg cagcatcttg atgtaccacg agctttgata ctatagttgg 120

atcatatggt gtttctcccc ctctaccttc ttgtgatgaa ttgagtttta cctttgaggt 180

ttcactatta tggatttgag aactcttgat gtatgtcttg cgtgggatac cagtgggtgac 240

aatggggtat tctattgatt cacttgatgt atgttttggc acacaactgc ggattcccga 300

ggtgacattg gggtaatcta tgcataatgg ttgatgcacg tgttttcctt gtttctccta 360

tagaaagctt ggggcactct ttgaagttct ctgtg 395

<210> 8405  
 <211> 213  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-H10  
  
 <400> 8405

ttttattgct cgatgcacta catgtcgcca cgccatttct tcaaacctac ttcacctccc 60  
 gacttttttt gcaatccgta tgcacaattc acagcgatct cacggcttgt gcccacgttc 120  
 tgacaccatc tgcgactttt cagtcattta ccgatttggt tagaaacctt atcgcgcgtc 180  
 aaatggtcca tcactacaaa gtcgaactcg gaa 213

<210> 8406  
 <211> 206  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-H11  
  
 <400> 8406

gagacctccg tcgtgggtccc cgtcaacagc gaggaggacg cccgcatggg ctaagcctcc 60  
 gtcgtgggtct ccggctaatag aaaatcttac aaagagggtt ccggcctccg tcatggtctc 120  
 cggcaagggc aaggacgccg tcaagccctc atgtacggcg cagtatccct gcgtcaagcg 180  
 gcttcttgag cggcgctcc tctcct 206

<210> 8407  
 <211> 77  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-045-Q1-E1-H2  
  
 <400> 8407

cccccgccg gctgggtgctg ctcatggctt ctttgctgtc gcgctcgctc tctctctctt 60  
 cccgccctgt cccgttc 77

<210> 8408  
 <211> 191

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-H6  
 <400> 8408

catgcttcat ctttgcata ttgctttgca ttaccatgtc gttgacatcg tatttgtgcc 60  
 aaatccacct ttcataatta tttcatacat gtcgctcttg ggggggtgca tatcccggta 120  
 tacctcactg cggcacgcac atacactcat attctgttcc aagtactgcc ttgtacttcc 180  
 tcattttctcc c 191

<210> 8409  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-H7  
 <400> 8409

cgggaaagag ttattcatca tcgaagggca aggtttctgc atcgatcgag gatgacgatg 60  
 atgacttcat gtagttttta tgctgtatgt tgtgagttca gttacatacc atttaattta 120  
 tttgtagtta tatctaattg tttgtaatgt ctggttgtat gaatattatg ttctatctaa 180  
 atttgatctt gtagttccga taacagagta ctaaaataga gtaggcataat gtctcgtaca 240  
 taagtacata gtcatttttc tcatacatag aatagacata agtctcacac agaaatagat 300  
 ggtaatgtct ctactgatag atagaagcgt cagtgcgcac gtctggcctg gcggggaggc 360  
 ggatctggaa tcagggacca tcccaacctg tcgggtgccc taacatgacg atgaagaatc 420  
 tc 422

<210> 8410  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-045-Q1-E1-H8  
 <400> 8410

gatatcgttt cgtccccaaa ggtgggacat tccctaccga aaccatcgct tgttgtgaga 60  
 agctctgggt tgcgagaagc ataaacccca accttcccca aatgggacaa aaaatttacc 120

acggcatggt gatgccgctc cataatagca tgccaagttt catgaatttc agaagagttt 180  
 tggatttact agaatttaaa aaccaggcat ctcaaggttt tgccggcaat caacggtgcc 240  
 ctggtgtttg aaattcattg ccatttcttg catgggacct aagcacgtac ccaaggacac 300  
 agatttgatt tttcaaccaa ttgatatgca ctggagcatg tgcattgtact tcaaatttga 360  
 attatgcaca taaatgcact gaaaaccaa tttaagcatt aaaatg 406

<210> 8411  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A10  
 <400> 8411

ttccgggtac acggaaggc cacacataat atggacctca agctaaggaa caccgacact 60  
 ggcgagctca tcatgcacct ggagtgggtt aacctcccc caggcatgtc gcggtgattt 120  
 gatttgattt gcagagggag gccagctatt gtctgccttt tgtgatcgta atgttgcttc 180  
 ctctatatat gagctatgac aataattaag cgatgcctat ctcatcttt acataacacc 240  
 caccgtaatg atttgtggat ctaccagga tggatgcgtat ataatatgag caacgtcgtg 300  
 gtgagatccg cagatcatca cagtgggtgc tacgtaaggc atgtgataga cttatgctgc 360  
 tgggggtaat gcttgctttc agttttgggt ctgcatatgt tgtatggcta ttttaataca 420  
 aa 422

<210> 8412  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A12  
 <400> 8412

ttcccgggac gacgccaaga acggattcta tcaatgtatc atcagtatca atcactacat 60  
 gacaccacac aacagatatg ctgctgtcag cagtcctctc taaatagtca ctgcaattat 120  
 cgtataagta catcattgct gctgtcagca gtgctctcta aatagacact gcaattatca 180  
 tgtacatcat tgctgctgca atgaaccatt aagaattatt taaaatctag cctaccatct 240

gcgttgtcgt caacagaggg ttgaggcgga gttacaaaat ctgtatgaga aaccgagggg 300  
 ttgtccgagt cagcgacatc tttgttatct tcagagctgt cagaagcagc tgagatggcg 360  
 tcacctgatt ctgaatgtgt tctgtccaca tatgcttcag gtaaggagct ct 412

<210> 8413  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A3  
 <400> 8413

taggacgttt gagcttgata gtttttgcac tagtgcttca actacatcct ttaaagcaag 60  
 ggggggttct cattttggaa aatgcaccgc cctgggctaata taaatagttt ggaatctttt 120  
 aacaaaaggg ttttggatatg atcaaaaaat tggcccaaaa agaagatcac caaagtgggg 180  
 tacagtaagc actatcatag gacgtgaatt ggatgctatg atcaacttga aacgtgataa 240  
 ttgttttgag atatggacgt agtgatatta aagtcatgct agttgggtga ttatgaattt 300  
 aaagaatgct tgtgttgaag ttatcaagtc acgtagcatg cacgtatgt 349

<210> 8414  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A4  
 <400> 8414

ttatttgggc ctagaggaac gcattgtgaa gtaacaagta gatgattggg tgctacagtg 60  
 acacaagctt aaaccctact ttaagcgttg ctctgtaatg ggctgatttg gatctacatg 120  
 tatcatgcta tggtaggtt taccctaata ctctgtatgt aattgcggat gcttgaata 180  
 cgggttaatc atacttggga tgcacgtcca agaaaggaca gtattcaagc actgggtccat 240  
 ccacatatca aattatcaaa ttaatgaacg ccaatcatat gaccttgatc aaatctagct 300  
 tgacgataat tcccatgtgt cctcgggagc gttttccttc atataagaac ttgtatcga 360  
 ttgtcctttg ctac 374

<210> 8415  
 <211> 294  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-A5  
  
 <400> 8415  
  
 catgtctagc tgtagtcgtc gacgacatcg tctgcgcatc ggcttcctagt ggacaactgt 60  
 gatgtgtgct gcaggcagat ggtggggtaa cgtgggctcgg gcggataggt tcgtgtcgtg 120  
 tcccattgcg gacgactaac aggtgctgat acgtgggggtg aagcatgacc tagggaaccg 180  
 cttgtccggc cgtgcacggg gtttccaact tatcatcccc atcgtcctga attatcggtc 240  
 ttctccgctt tcggttacat tggggatata ggctgtcatg atattacatc tgga 294

<210> 8416  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-A6  
  
 <400> 8416  
  
 gacgggctca cacatagcca tagaattcta taattttaaa tttcggcgaa gcccttagtg 60  
 tccggaaggc caaattcggg gcgctatcca cgcttgggcc ggacaaagcc ggttcctcgc 120  
 tctaagcggc ataagtcttt agggactcaa aaaaacctct cgaacagcga ccggctctcg 180  
 cctcatcatg acggtcagtt ttagctttct cactgaggt gctcgcccag ctcaactggg 240  
 gcacaatcgc agtgggttctc ccagcgctac cttagccgat ataacggaac gtaaggtacc 300  
 aaaacatggg agccgggcaa acccaactat tgaccaaga catgattcgg agccaatgca 360  
 tataatgcta taagttcggg gtgccgcact tgtgaaagtg ttc 403

<210> 8417  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-A7  
  
 <400> 8417  
  
 cggggacact gagatgtgtg tggagaggag gtaacaaaaa ttatcttgag tattgtccgg 60

agggaggaga gtccggaatg catcaatgat acggttttgg tgctcatacc caaggaaca 120  
 agccccactg ctttatctca gtatagacct atcagtttgt gcaatgtgtt atacaagata 180  
 gcatccaagg taattgcaaa tagactgaaa ctcatctgc cagacattat ctctgaggag 240  
 cagtccgctt ttgtccccgg aaggttaatt actgacaata taatttcagc ttatgagtgt 300  
 ctgcacttta tgaagcggtc tagatcaaaa tcaataatt tttgtgact gaaattggac 360  
 atgatgaagg cctatgatcg ggtagagtgg acatatctga gggctatcat gactaaactt 420  
 gggtttgc 428

<210> 8418  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A8  
 <400> 8418

actgagaaac tgatgcggat cgtatctgac gatggcaggc ggcgacttgt gatcatactt 60  
 ctgaacgcac agtttcaaaa catctggagt gtcacctaag gtaccaagtc cttgcaccag 120  
 atttccttgg atcttaatgt gagacatttg tcaaaggagg cttgtcacat gttgccgaag 180  
 acggtgtaga tattcccagt tatgacaaag ctccagcaca tgctcatttc caacaattga 240  
 aactcacttt tgatttgcta taactttaat atcgaagatg caaaacacta tcagacactg 300  
 aataatgcaa taaggtttta atatgtaaaa cgatcttggt gtaggtcgta tcacacgatg 360  
 tgtacagaca tgatgccaac 380

<210> 8419  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-A9  
 <400> 8419

attcccggt caacggggat cacacagaag ccgttcagca catgcagaag cgacggcaga 60  
 gcacaatatt gccggccatc acagcgaggg catgatggag aagatcaagg acaagatcag 120  
 cggcgacggc cacggcgacg gcaagaagga cggcgaccac aaggagaaga aggacacgaa 180

gaagaagaag gacaagaagc acggcgaggg ccacaaggac gacgacggcc acggcagcag 240  
cagcagcgac agcgacagcg actgagccaa ctccggccgc gctccggcag cagcgtgcag 300  
tgtaggcgaa atcgatgaac gcctgggaca agtgtggcat acatatatgt tgcagggttt 360  
ggagcgtgtg gtaccatatg tatgtaatgc gtgacatgt 399

<210> 8420  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-046-Q1-E1-B1  
<400> 8420

atttgaaaaa ccataaaaac ctacatgtaa aaatatgtaa tcttacctgc cagcaatcta 60  
ttagtaggtt ggttaaaaaa tatgcaagaa attagcatga aatctttatt aactatagat 120  
acattttaca catatatcac acggtgtttg acttctcatc ctcttaggtt gcaataagat 180  
ttttactggt cattacttag gcaggctcta atccgttatc agtgagtata gttagtata 240  
gtgttggtgg ggctcggcta gagggttatc acgagccgtc ctaagacata ctatcagtct 300  
gtgatgatgt gttcacgtca acctcaccca aaatggactg ctcaattgat tggtcctaa 360  
ttaaattag ttagtctgtt gattcanaat taatcctcca tttttccgc t 411

<210> 8421  
<211> 376  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-046-Q1-E1-B11  
<400> 8421

acaagtgcac gctttgcaat gtaagcatca cgcgaaatat tgtataacgg agatatgcac 60  
taaaggcaga tgggtccgcc gcggtcgaga tccttcggac cgaggtggcc cgggccaaaa 120  
aagcaagccc cggagtaaca gtgccgcttg ccaagaagga atctgcagag tttaaaggcc 180  
gaataggctg ctccggcgca atgcggggag aaaatatcca cgatgacgcg tgagctaaaa 240  
gatgccgcta gccgctgtgc aatccttgat gaggataata aagccaaaac ggttgatctt 300



aacaaggcct tacgagagggc gaaggaagca cgggtccgaat ctagagcgcc ccgggaggag 360  
atccgacaag ctgggg 376

<210> 8422  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-B12  
  
<400> 8422

ccgggtacac gggcaaggcg cagtgcagtt ggagatcaag aagggccaca tgtacttgtc 60  
tcgtgggttg gagaagttct accgtgccta cgacctgcag ctgggggtact tccttctctt 120  
caggtacgac gacgatgcca acatgctcat cgtgaagggtg ttcaacaaga ctatgtgtcg 180  
catgcgctac gctgcgatg atgatgccgg tacattctgc ctcttcttat tcctctacat 240  
ttggctttgt ctcacatcta ttgttaacgg tcattgttgc attttggaca ggtaatggga 300  
gcagcagcag cggcactggc tacagccaaa gcagcagcga ctatggctgt agcgaaagca 360  
gcagcgattc tggct 375

<210> 8423  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-B3  
  
<400> 8423

cgctggaata gatgttgagt acaccatagt cctgggacga gagaaggatc aaaaggacaa 60  
aaaaaggaaa aagcccgcaa ggttcaagtt tggtttgaag gactaaggct ggggggtacaa 120  
cataggcaag gccgactttg aaggccggaa tttaaaggac ttccttgaaa gcaaccaatt 180  
caaattcgta agggtaaaact ttggttaacaa caaagaagtc ctgggtcgga taggcatcat 240  
tgtaggcaac accttcaacc tccagaagaa tcggctgggtg tcctctcctt agccttcaat 300  
gctgaccctg gcaagagcca tggttcatcc ttcatacagt aaactggaga aacctccata 360  
cacgtttcat cattatgcat ggcagcgga tgtactagat atagaccaca tccactacgc 420  
tgcaatggat 430

<210> 8424  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-B5

<400> 8424

cggggtcgacg ggaaaaagga gccatggatt tcctgcaggg gcggagcgctc gagaccatgg 60  
 tggccgctgc cgtcgcggtc gtcgccgtcg ccgtgggagg cgactcctc ctccgccgat 120  
 ccaagaggcc caagggtctg ttggatcctg agaacttcaa gaagtttaaa cttgtggaaa 180  
 agacacaaat aagccataat gttgccaaat tccgatttgc tcttccaacc cctacctctg 240  
 tgtaggcct tccaattggg caacatatca gttgcagagg tcaagatgct acaggtgaag 300  
 aagtaatcag gccttacaca cctactacat tggattctga tctcggaaat tttcagcttg 360  
 ttataaagat gtaccctcaa ggaagaatgt cgcatactt ccgtgaaatg aaagttggtg 420  
 attaaatgtc cgtgaaggga cctaaaggctc ctttca 456

<210> 8425  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-B6

<400> 8425

acggggaaga gtagagtgtt gttaccgatg atacagggtta gtcaagcagg gagccaggga 60  
 ggatccatct gaactcttcg ttctagctta tggatctttt gtttatggca tcgtctgtac 120  
 atcgtctgtg ttttaggtt tcggtgctca atgttcttcg tgcgaactc atccagtgtg 180  
 tattctttcc gtgttatact ttgtcaagtt cagagagacc tgatgagtct tttccaacgc 240  
 ctctttcttg tttgtgagtt atgatgttag ccttcttcag acggataata gactttttca 300  
 ataagtttat gagttcttta tgactaatgt gagtctacgg atgatctaca ggctcaaact 360  
 ttaa 364

<210> 8426  
 <211> 253  
 <212> DNA



tcctcaccac aggcattgtc cgggtgatttg atttgatttg caaagggagg ccatctattg 120  
 ccttcctttt gtgatcgtaa tgttgcttcc tctatatatg agctatgaca ataattaagc 180  
 gatgtctatc ccattcttta cataacaccc actgtaatga tttgtggatc tcacaccagg 240  
 atgggtgcgtc tataatatga gcaacgtctt ggtgagaccc acacatcatc acattgggtg 300  
 ctacgtaagg catgtgatag acttatgcta ctgggggtaa tgcttgcttt caattttggt 360  
 tctgcatatg ttgtatggct attttaatt 389

<210> 8429  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-C1

<400> 8429  
 ggggtcgaggc ggagataata tactgggggtg tggcgagtat ttataaggac agggacggcg 60  
 cagcgttatt acgcagggtc ccctggcgggt tcacatctga aggacacgtg gcgatcatgc 120  
 aacacattgg aggttggtcc atgttccac gcatgcctgg attgtcgggt ggtcgttccc 180  
 gcttctccgg ggttcaggca agaaggattg agcatttaaa acagatttaa tgcttgtctc 240  
 tgtatcttct gctgacaagg acgcagctaa gacattcgac agtttcaata gaatgcatat 300  
 gatttgata gatagatttg agacaggagc atagaaaggt taggggccga tcacattcac 360  
 ttagttcaaa agattcaaac gagaagacat agctataagt gaatg 405

<210> 8430  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-C12

<400> 8430  
 attcccggga cgacgggggt cgtacgggt tcccgaccag gtacggcgcc atggccgcgc 60  
 agatgaaggc attctttgac tccacaggct ccctctggga gaagcagagg ctgcgccgga 120  
 agcccgcgg attcttcgtc agcaccggca ccaggggcg cgccaggag accactgctt 180  
 ggacggcaat caccagctg gtgcaccacg ggatgctgtt tgttcccatc ggctacacct 240

ttggcttggg catgtttaac atggacgaca tcagaggggg cagcccctat ggagctggag 300  
 ttcttgctgg tgacggtagc aggcagccca gcgaggcgga acttgccctc gccgagcacc 360  
 agggcaagta catggccgcc ttcgtcaaga agctcggcca ggctgattc tgagc 415

<210> 8431  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-C4  
 <400> 8431

tgaacgaggt caccgaagtt tgggctgtta aggataaaat caagcagttc tctgagactt 60  
 tcagaagtgg ctcatgggtt ggggcaactg ggaaaccgtt gacaaatgtt gtctcagttg 120  
 ggattggtgg tagcttcctt ggacctctgt ttgtgcatac ggctctccag actgaccag 180  
 aagcagcaga atgtgccaaa ggccgacaac tgagatttct tgcaaatgtt gatccagttg 240  
 atgttgcaag gagcatcaaa gatttagacc ctgcaactac tcttgttgtg gttgtctcaa 300  
 agaccttcac gacagctgaa acaatgttga atgctcgaac tatcaaggag tggattgtct 360  
 ctgctcttgg acctcaggct gtttcctaac acatgattgc tgtc 404

<210> 8432  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-C5  
 <400> 8432

actcgggaagt gtaggccatt taaaccatta tcaattggga ctaggcatgt gtgtgcgctt 60  
 agtaaagtac taatctcttg atcatttttc attaatcacc aatctccgac catatgggtg 120  
 actatatgca cttccaccaa caccgacagt agctgcaagt gcaagagtat gggggcatcc 180  
 tgttgcaatt aggttttagca atcttagaga gcctctagta gagtcaccat atatgtgatc 240  
 accatcgtcc atatggagcg caatccatat ggatatgaag atcgtgggtgc ctgtgcgcaa 300  
 acacatattc tgcatacgc agtaattttt ttcattttct cattcaaaca ctttgattcc 360  
 ctccaaattt aaatgttttag cccatccagc acacatgtgc ataatttttg ataagttgca 420

<210> 8433  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-C6  
  
 <400> 8433

acgggttcag caacctagaa gacgaggcta ggtaaaaaag gagagaagaa acattgtgta 60  
 tggccaccgt gtaacaata aggagcacca aatgctgtga acgacttgcg agcaatttgc 120  
 tttttgcttc accggagttt gtgtagatgc gaattacgtt tcaggacccc ctccccctt 180  
 tttttttgcg acagacagac agacagcctt gttttttccc caggattttt acattgtttg 240  
 gtctccagcg ccaggatgca cgccattatt ttttcacat gtgtaccatt atttgttgta 300  
 taagaagact gagcaccggt ggacatgttc ataggaggaa taagcacgat gtccatctac 360  
 ttgaacatca ataatgtcta tatttatatt tatatctatt actgtatttg ccac 415

<210> 8434  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-C7  
  
 <400> 8434

gacggggaag aacacaaggc ggagaagcgg gcgccggcga ccaaggaggc cggcggcgag 60  
 gggaagacga ggggcaggaa gaagggcagc aaggccaaga agggcgtgga gacgtacaag 120  
 atctacatct tcaaggcgct caagcagggt caccgggaca tcggcatctc ctccaaggcc 180  
 atgtccatca tgaactcctt catcaacgac atcttcgaga agctcgccgg ggagtccgcc 240  
 aagctcgccc gctacaacaa gaagcccacc atcacgtccc gggagatccg gacctccgtc 300  
 cgcctcgctc tccccggcga gctcgccaag cagccgtct ctgagggcac caaggccgtc 360  
 accaagttca cctcatccta ggctagtctg ccgtgtccgt gaactgatg 409

<210> 8435  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-C8

<400> 8435

cgggtggagc tattagagtc atgctactgg gtagttgtgg attagtagaa atacttgtgt 60  
tgaggtttgt gattcccgtg gcatgcacgt atggtgaaca gttatgtaaa gaagtcggag 120  
catgatttat ttattgattg tcttccttat gagtggcggg cggggatgag cgatgggtctt 180  
ttcctaccaa tctatcccc taggggcatg cgtagtagta ctttgcttcg agggctaata 240  
aacttttgca ataagtatat gagttcttta tgactaatgt gagtccatgg attatacgca 300  
ctctcacctt tccatcattg ctagcctctt cggtagcatg cattgccctt tctcacctcg 360  
agagttggtg caaacttcgc cggtagcatc aaaccccggtg atacgatact ctctatcaca 420  
cattaacctc aataaa 436

<210> 8436

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-C9

<400> 8436

aagccaagga gtagtctatg cctgatgctt ctgagctctt tacaaatgtc tacgtcaagg 60  
gtttcggcgt tgagtcattt ggcgcagata gaaaggagtt gagagctaca ctcccatagg 120  
tcaccaacct gaagatgaag acgagtactc ttctaacacg atgatatatc gaggaggaat 180  
aagcattggt gaacaaacct ttgggtggtg ctggcagtat ttgttgcaaa acgaacctgt 240  
atagagatgt gatgtcaggg gaattcgttc cttatttgtt atgttttctt tttttttctc 300  
ttcctgcaat tcagtttaac tgctgctagc tggcgatttg gcctgcataa tcgcttctgt 360  
tcgc 364

<210> 8437

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-D1

<400> 8437

ttgttcatgc tcaactgaaac ttgagaatc atgacaacat tcaattttca ctaacaacac 60  
 ttatcccatt gtacaattcc attgtataat aaccctaattg tgccaatggt tgccttaagg 120  
 atgtttacaa tacatgatgg tttgtgaggt gcatgacaga aacattgggt gtactgcgcg 180  
 atatttaact ttttactgga atgtcaaaag gttctgacac attgtgcaact gtctttctat 240  
 ataaattgga taatttttct aatttttgca gaagttttca cgtaacataa gtagggctaa 300  
 tgtccatatt aatacagact gttctgtttt agacagaatc tgtatttgaa gcatattcta 360  
 cctgttatga ggaaactatc aatttataac actggattaa gccatgaaaa a 411

<210> 8438  
 <211> 415  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-046-Q1-E1-D10  
 <400> 8438

attcccggaa cgacgggctg acggaaatac ttccgctact ttgctgcac atcccttcct 60  
 cttcggggaa aaccaacgca gtgttcaaga ggtagcagtg atttgctttc ttataactaac 120  
 ggatcttacg agttttctgt tctgaagttt tcaaattttg gttaaagatt cgatggacca 180  
 cggaataagg agtggcaaga gcctaagctt ggggatgccc aaggcacccc aaggtaatat 240  
 tcaaggacat ccaagagcct aagcttgggg aagccccgga aggcacccc tctttcatct 300  
 tcgttcatcg gtaaccttac ttcgagatat atttttattc accacatgat atgtgttttg 360  
 cttggagcat cattttcttt cataggattt gcttgctgat catttagagt aatgt 415

<210> 8439  
 <211> 422  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-046-Q1-E1-D11  
 <400> 8439

attcccggga cgacggggag gcagaaagg aggcgagat ggcgaccgg gtggacaacg 60  
 agtacgacta cctcttcaag attgtgctca tccgggaatc cggggtccgg aagtccaaca 120  
 acctcccctg gctcaaccgg aacgagttcc ggctcgagtc caagtccaac aaccgggtcc 180



aattcccca cccggaccct ccaaaattaa aaggaaaaac tgtaaaggac agttttggac 240  
 acggctgggc aggagagata ccgtgcaatt actagtgcatt attacagggg tgctgttgga 300  
 gcactcctag tctttgacat aacaaagagg cagaccttcg acaatgttca gaggtggctc 360  
 cgtgagctcc gggatcatgc agatgccaac attgttgtca tgatgggtgg gaacaagtca 420  
 ga 422

<210> 8440  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-D12  
 <400> 8440

cggttggtgc taatagagtc atgctagtgg gtagttgtgg attagtagaa atacttgtgt 60  
 tgaggtttgt gattcccgtg gcatgcacgt atgggtgaaca gttatgtaaa gaagtcggag 120  
 catgatttat ttattgattg tcttccttat gagtggcggt cggggatgag cgatggctct 180  
 ttcctaccaa tctatcccc taggggcatg cgtagtagta ctttgcttcg agggctaata 240  
 aacttttgca ataagtatat gaggctctta tgactaatgt gaggccatgg attatacgca 300  
 ctctaccct tccatcattg ctaggctctt cggtagcatg cattgccctt tctcacctcg 360  
 agagttggtg caaacttcgc cggtagcatc aaaccccg 398

<210> 8441  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-D4  
 <400> 8441

gtagtaaaa agatggatca tctattttgg aacggaggga gtaataatga atataaaaac 60  
 taccatttgg acctttgaac aagtgggggt ggagggtccg ggaattttcc aaggtaacca 120  
 ataaccaagg acatgggtccg ccaaaacaaa cctcatcaa attttggttaa caggccttta 180  
 ttgagtagat tacaacattg cacatctttt ctgtgtggag ttaactttat agttctgtaa 240  
 tacactagac ttgctctggc taagtttctc ccaatatata tggtagaata gcctactaaa 300

ttttttaagc ttagcacata aattaaagca cagttactgg gtttgtataa ttgtaggcat 360  
 ggtaattgt gtggtgtacc tctatTTTTT ggaatttTgt agtggcatac tggcaaccaa 420  
 ctgt 424

<210> 8442  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-D5  
 <400> 8442

gacgggagat gataacgacg gtgatgctgt acacagtcac catgtagaag atgcaggaca 60  
 tgatgatgat gccggcggag cagacgacgc tggaccatcg atgggctggg tgcaggaccc 120  
 tcatattcaa gagctgcttc tcaagcagac gaataacgca ggagctgccg cccgagagaa 180  
 agccaagatg gatcaacttg agttagacgc ggttactcca ttgtatgaag gatgcaggcc 240  
 cgaggatacc cgctgaaag taacgctcat ggctctggag atgaaggtaa aacacaaaat 300  
 gaccgacgca tgcttcgacg agaacatgtc attctggcac gaacgtcttc ccaaggggaa 360  
 caagtgcccg actagtttgg aggaggcaaa gaaaatcgtg tgcctctgg atttaccgca 420  
 cgtaaa 427

<210> 8443  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-D6  
 <400> 8443

gacgggtgaa tcaaaaggag atgaaccggt gacgctgac ccataatcct ctaccgccca 60  
 aggtcaagat cattaatcta aggactggct tagcatctgc cacttacaga tactttgtgc 120  
 accaaaacac ttatcctttt gggccatccg gtgccatgtc acacgcgagt ttcagaacat 180  
 tgatctgcca atccatcgtg catgttgatt tgcataacac tgttaaaccg ctcgatctga 240  
 cgtttgaata tctggcactt atactttatc atatcatcag attacgcaga ccatactttt 300  
 catatttctt gcacatactc atctaactg tgcctgtca tatttaccoc aggaggggg 360

atgcgatgta catatttcca tgg

383

<210> 8444  
<211> 341  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-D7  
  
<400> 8444

cgggccgacg ggttatagga ctgcgtttga tttttagtg cgcctcctcg aattgaggta 60  
gtagcctgcg ctttggttag tattttgttc ggcgctcgag ttcgtattct tcggctgctc 120  
gggccttagt ctgtctgtct gtgagcagat cttggtcagc ttggagctgc tgctgcttct 180  
tttttaggct tcttgcaagt gctgtaagcc tgcgcttgaa gcgctcctgc tctatgggat 240  
cctctggtat gccaaatttg tcgccattga ggtcacctc gtcttcggag ggaggcatat 300  
agttatcatc ctccaagtat ccgtccatcg cctgttcgtc t 341

<210> 8445  
<211> 379  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-D8  
  
<400> 8445

acgggccaaa cgatggagct cctctcgccg ttaccgcccgc cgccggatga gaaccaggaa 60  
gaggagaaga aggaggaacc tgagccgcca aaacctgaac agaagaaaga gccaacggtg 120  
atctccgtgg tgcggaacgt gcacatgcac tgcgaggcct gcgcgcaggc gataaagaat 180  
aggatcgaaa acatgaatgg agtgcaatct gcatacccgg acctgaacgc gtctgaactg 240  
acggtgaatg gcgtgtttga agaggtcaag ctgactgagt acatgcacaa tcgcaccggc 300  
aggcatgccc ccattatcaa gtccgagccg gttgccccgg ccgagaaggc cggcgaaggc 360  
gacgccatcg atcaaaaaga 379

<210> 8446  
<211> 409  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-D9

<400> 8446

cggttagggc taagaattaa aggacatgag tgttttgctt tgtgtgattt gggtagtagt 60  
gtttccacga ttccgaaaac tttatgtgat attctaggtt tccatgatct tgatgattgc 120  
tctttaaatt tgcaccttgc ggattccacc attaaaaagc caatgggaag gatcaatgat 180  
gttcccattg ttgtaaatag aaatttgatg cccgtagatt ttatcgttct tgatatagat 240  
tacaatcttt cttgccctat tattcttggt aaacctttcc ttagaacgat tggtaggtatt 300  
attgatatga aggaagggaa tattagattt caatttcac taaagaaagg catggagcac 360  
ttccaagaa agaaagtcaa attacctat gaatctatca tgcgagcta 409

<210> 8447

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-E1

<400> 8447

ggtaggtac atgacactac accattattt gggcctagag gaaggcattg ggaagtaata 60  
agtagatgat tggtagtag agtgacagaa gcttaaacc tagtttatgc gttgcttcgt 120  
aaggggctga tttgatcca catgtttcat gctatggta ggtttacctt aatacttctt 180  
ttgtagttgc ggatgcttgc aataggggtt aatcataagt gggatgctcg tccaagaaag 240  
gacagtacc aagcactggt ccaccacat atcaaattat caaagtaatg aacgcgaatc 300  
atatgagcgt gatgaaacct agcttgacga taattcccat gtgtcctcgg gagcggtttc 360  
cttcatataa gaacttgtag aggattgtcc tttgtacaa aaaagattgg gccatcttgc 420  
tgc 423

<210> 8448

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-E2

<400> 8448

acgtggaaac tattggttca ttatgtggat gttaggactc ccgcaaagtc ctgatggttt 60  
 tgcttccaat ctccggtga ggttgaagaa cgctccatga agtgacagtg caacatgtat 120  
 cggccctaga tatggattgg gtctacgagt gtogttcaac cttaacgttt gggctagatt 180  
 gtgctgtccg gtttggttac atttttctgt ccaagcagcc tgatacgggg ctctgtttgt 240  
 aggtgctctt agagcaccta caaccggacc ccataccgc ctcaaagtgt cgtgctggct 300  
 gccatatcag tgctcagacg aaaaaagca acccaaccgg gcgtcccgta ttcgggtccaa 360  
 atgcccggaac tgactatcaa cccagcatc cagctc 396

<210> 8449  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E3  
 <400> 8449

ttgttcttgt tagaggcagc accaagattc ccaaggtcca gcaactcctc aaggactact 60  
 ttaccggaa aggaccaaac aagggtgtta aacctgatga agtggttgcc ttccgaactg 120  
 caattcaagg aaacaacctt aaccggcaag gccgttacca aaacaaaggt aacctcctcc 180  
 tccaatttgg gcccttaac cttcggtacc aaaactgttg gaggattcat gacaaacctg 240  
 ttccaagga acactgtcat cccacaaag aagtcgcagg ttttcaccac ctaccaggac 300  
 cagcagacca ccgtctctat ccaggtcttt gagggggagc gcagcatgac caaggactgc 360  
 cgtcttctcg gcaagttcga cctttctggc attccccag ct 402

<210> 8450  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E5  
 <400> 8450

acggggcaca ccaccgtgcc tgagtaattc cattgtaggc ttactggacg gtgatgggtt 60  
 gtagagatt tatcatgtaa tcgaattagt tttgttaggg tttgatccct agtatccact 120  
 atcttctgag attgatgttg ctatgacttt gctatgctta atgcttgtca ctagggcccg 180

agtgccatga ttccagatct gaacctatta tgttttcatc aatatatgag agttcttgat 240  
 cctatcttgc aagtctatag tcacctatta tgtgttatga tccgttaacc cccaaagtga 300  
 caataatcgg gatacttacc ggtgatgacc atagtttgag gagttcatgt attcactatg 360  
 tgctaattgct ttgttccggg actctattaa aaggaggcct taatatccca taatt 415

<210> 8451  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E6  
 <400> 8451

gggtcgacgg ggtatgggat caacacctat gttttctttg ggtcaaagtt accgtgggtg 60  
 ttgtgcataa gttatcacac ccgtgggtgtg tatttcacct tgccatttag acaaaagtta 120  
 attgcgggat attttcaaca actttttcct aagtcaaaag ttagcacggg gtttgtatgt 180  
 gagttatcaa ctttgtgggtg tgtaaaatat catgggtattt acatagaggt taccagggat 240  
 atgttttcaa caacaaacaa tcccgggtca aaagttttca cagtgtttgt gagtgtgtta 300  
 tcagctttgt ggtgtattac catgatattt acacataaac taccgaaggt atgttttcaa 360  
 cgattttttt cagtatgctc ctctctctta tatttaggaa caggggggtgt acaaaacaga 420  
 agcaacg 427

<210> 8452  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E7  
 <400> 8452

cggggcatgg gaggacgtgc cgcccatgcg ccacgccatc gtcgtcaaca tcggcgacca 60  
 gctggagggtg atcaccaacg ggcggtacga gagcgtgatg caccgcgtgc tcaccgcca 120  
 cgacggcaac cgcatgtcca tcgcctcctt ctacaacccc ggcgcgcagc ccgtcatatt 180  
 cccggccccg gcgctcgtgg gcgctgccga cgctgctgag aggaacgagg gcgaggagg 240  
 caccgcgcta tacccaaggt tcgtgttcga ggactacatg aacctgtacg tgcgccacaa 300

gttcgaggcc aaggagccac ggttcaaggc catgaaggca gacgccgcgc ccatcgccac 360  
 cgcgtgataa ctgatacgcg cccggacccg gacgagagta ttgtgagacg tgttttaatt 420  
 tc 422

<210> 8453  
 <211> 170  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-E8  
 <400> 8453

acggggtaat gcaccatgtg tactcattc tacacgccat cttctgcaac gtctgcgact 60  
 atctgcaagt tatcacgtgc tggccgtact acagtgtgat ttacacgtgt tctaactgct 120  
 gtattgtatc atcatgttca tcgtctcttt ctacatgcca ggcgcttact 170

<210> 8454  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-F1  
 <400> 8454

ggtcgaggcg gactcccaat gtgagtggcg acatcggtga atcgaagaaa tatgtcatcc 60  
 atccccaggg agggatgacg atcccatttg gaggggaaaa gccactccc gaaagatggg 120  
 catggattga tccatctgtc ttcaagctaa ggagtgaac attcctcaga gataagaaga 180  
 aatgtccagc tccgaactat gccgcgtact acccaatagg tgttgacttg tttgcaagcc 240  
 ccaagaaggt ttgcacatc gccgaacaca ttgatcttcc acaagtcaaa tcacacgaca 300  
 agctcccatc acttttgatc gtcaacatcc agatgcctac ctatcctgct gctatgttcc 360  
 tcggggacag cgatggagaa gggttcagcc tttgtttgta cttcaaaatc tc 412

<210> 8455  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-F10

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																			
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000	1,500,000	1,550,000	1,600,000	1,650,000	1,700,000	1,750,000	1,800,000	1,850,000	1,900,000	1,950,000	2,000,000	2,050,000	2,100,000	2,150,000	2,200,000	2,250,000	2,300,000	2,350,000	2,400,000	2,450,000	2,500,000	2,550,000	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000	2,850,000	2,900,000	2,950,000	3,000,000	3,050,000	3,100,000	3,150,000	3,200,000	3,250,000	3,300,000	3,350,000	3,400,000	3,450,000	3,500,000	3,550,000	3,600,000	3,650,000	3,700,000	3,750,000	3,800,000	3,850,000	3,900,000	3,950,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000	4,300,000	4,350,000	4,400,000	4,450,000	4,500,000	4,550,000	4,600,000	4,650,000	4,700,000	4,750,000	4,800,000	4,850,000	4,900,000	4,950,000	5,000,000	5,050,000	5,100,000	5,150,000	5,200,000	5,250,000	5,300,000	5,350,000	5,400,000	5,450,000	5,500,000	5,550,000	5,600,000	5,650,000	5,700,000	5,750,000	5,800,000	5,850,000	5,900,000	5,950,000	6,000,000	6,050,000	6,100,000	6,150,000	6,200,000	6,250,000	6,300,000	6,350,000	6,400,000	6,450,000	6,500,000	6,550,000	6,600,000	6,650,000	6,700,000	6,750,000	6,800,000	6,850,000	6,900,000	6,950,000	7,000,000	7,050,000	7,100,000	7,150,000	7,200,000	7,250,000	7,300,000	7,350,000	7,400,000	7,450,000	7,500,000	7,550,000	7,600,000	7,650,000	7,700,000	7,750,000	7,800,000	7,850,000	7,900,000	7,950,000	8,000,000	8,050,000	8,100,000	8,150,000	8,200,000	8,250,000	8,300,000	8,350,000	8,400,000	8,450,000	8,500,000	8,550,000	8,600,000	8,650,000	8,700,000	8,750,000	8,800,000	8,850,000	8,900,000	8,950,000	9,000,000	9,050,000	9,100,000	9,150,000	9,200,000	9,250,000	9,300,000	9,350,000	9,400,000	9,450,000

```
<210>      8456
<211>      346
<212>      DNA
<213>      Triticum aestivum
```

<400> 8456

<210>	8457
<211>	403
<212>	DNA
<213>	Triticum aestivum

<400> 8457

3756



gccaacccgca acttaccgat cagtggagat cgagaagggc gctgaggcca cgagtgtctc 240  
 tgggtggttcg ggaagtgggtt cttcatcatc cagtgggtca gggtcaggga gctcagggga 300  
 cagcgcctca gaagctggcg atgctcgttc tcttgtttag aggaggttgt tctaacagta 360  
 ggatttgagt angtgaggga tgtgagtact taattctggg atg 403

<210> 8458  
 <211> 168  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-F4

<400> 8458

atggtcaact taagtgtga gtagaacaat taaaagtgtg gaaaagatt taacttcccg 60  
 aataaatgcc ccctggctct caattcgggg cttttccccg gggaaaacaa ttacgttaat 120  
 gacttacggt ttaacaaaaa cttccccggg aaattcaaga tttctcca 168

<210> 8459  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-F7

<400> 8459

cgggtcgacg ggcaaacaca tactcagagg atataagtga agcacatgag taaatgacaa 60  
 actactccaa aacgatatag gtgaagatca atgagtagtt aaataattat gtaactacgt 120  
 gaagactctc tctcattacc gaatttcaga tcttgggtatt gtattcacac agcaggcaaa 180  
 gaaaacaaa atggcattgc acggatagca caacacatgt gaagaagcag aaacttaggt 240  
 tcaaccgata ctaatcgata gttgttgaag aagaaagggtg ggacgcctag cggggcatcc 300  
 cgatgcctta gatgcttgag acttcttgaa ctactgtcat ggggtgcctt gggc 354

<210> 8460  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-F8

<400> 8460  
 acggggaaat tcgctgtcta agatgacggt tgagctgctg acgctggggt ctacctctgc 60  
 ggaagatgtg caactcatga tggttgtcat gaactcgcac ggagattgca tcaaccatgt 120  
 caacagttca actccttctg catagccaac ttcggggtca tgatagacgt cgccaaggac 180  
 ttcagaatca tctcaattca ccgcattctt cagatccagg agcagatgaa tctagatagc 240  
 gctacgtgaa acatattcag tcaccgacct agccagggtc cgatgcattc tcagcttcag 300  
 ctggacgcag gcccaaactc tgtgtgagta ctctatttgc aaccaatagt catcaatgat 360  
 ga 362

<210> 8461  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-046-Q1-E1-G1

<400> 8461  
 gggctcgacgg gaagcgaggt gagtcattgt cagaagagga gcacaaaaaa tttctacttg 60  
 gattgaacaa attaggaaaa ggtgattggc gtggcatatc ccgtaattat gttgtctcga 120  
 ggacacctac tcaagttgct agccatgctc agaagtattt cattcgccaa acaaagtgtta 180  
 ataggagaaa gagaagatca agcctcttcg atatggttat tgaggatcct ggtgaccagc 240  
 cactctcccg ttcacgtgca caagagatgc cgctctcccg ttcattctca caagatgtag 300  
 aagagttcgt agatgatcta cggcctgtta ctgctcctgt gacnacaccc gtcctatgc 360  
 ccgtgataac atctgtttct gtccacca 388

<210> 8462  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-G10

<400> 8462  
 tcccgggtag acgggcagct ggatagtcac ctatacccat ttatgtgtca aatagatcat 60

agggtttctc aagttactcc tgccccccct ttttgaata gaactccaat ggttatgttc 120  
 tcccaatcca tgaaatctga gtaagtttcg ttagatccgt gtagtgtatt gatgttttga 180  
 atggtacagg tgataagaga ttagttgttt catatgtgca aatgatttct tctagtaatt 240  
 cgactagggc cagtgttcgt gctaataatt cctagccagg gcttgacaat tgattttgaa 300  
 tgacctaaat atgtttgtgc cattattttc ttcaagattg gtctatacat agacgactgt 360  
 gcttaaaaat agaaccataa tatctggata tgtataaata aaagccataa attcctaata 420  
 cta 423

<210> 8463  
 <211> 320  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-G2  
 <400> 8463

cccgccccgg ggcccaaccg gtgcccaagg tcaaggaccg gattctcaag gccgaaggct 60  
 tccgcaaacg gcaattcaag ttaccaaagg ccggcttaac atggccggcc ttccttgaaa 120  
 ccaagtttac cttcatgcat gcacgggtgtg gtgtgcccgt ttccttcaac ttttgtacaa 180  
 aatcatgcat cagggcgtag ataccgtatg gcatacatat atacatagag cgagaaatat 240  
 agtagagagc ttcgtggtac attattggtt ttattacggc actcatctct ggtttgctgg 300  
 tgtatggact caggaggagg 320

<210> 8464  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-046-Q1-E1-G4  
 <400> 8464

aagggtcaac caagggaaaa tgcaatacct ccaagggtcc aaaggaaaac cctaagtgat 60  
 taacctgggc ccgccccacc accaaggcaa ctcttggaac ccgggccaat aaaacggctt 120  
 tggcccaaat ttggaataag caaccccccg gtccggaacc cttggaccaa atccgggaaa 180  
 ttggcgcaat caaccaattc aaagccaaca tcgtgtacct tgctgcggc gacaaaattc 240

ttggcgctcga tgtggttact aagaagataa ctaggatttc tggcttagct atagctgtgc 300  
cagatctccc cctactacca tgtgtg 326

<210> 8465  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-G5  
  
<400> 8465

ggtcgacggg gatgttcac ttccgcaaca agcacatcat gattgatctc gggacaggaa 60  
acaacaacaa gatcaactgg gcaatgaaag acaagcaaga gtttgttgac attgtggaga 120  
ccgtctacag aggagctcgt aagagccgtg gtctgggtgat tgctcccaag gattactcca 180  
ccaagtaccg ttactgaggt atctgtgcct ggetattcat gtgcagtgtg tggcctgctc 240  
tgttctgtga aatgagctgt gtgacccttg atgtaatgtc tgtcaacttt gaaagtgtcg 300  
cgtaactatg tatttgtatc ttaaatacat gtcataaacc tgtaaccctt tgaaacagga 360  
cctgctgtct attggtatta ctgattaaag tgatatttgg ttg 404

<210> 8466  
<211> 396  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-G8  
  
<400> 8466

cggggataag cacctcgccg tcgggggaga acatgcgcta cttcaatgtc atggtccttg 60  
gccccgcgca gtgcgcctac gaaggtggag tcttcaagct tgaacttttc ttacccgagg 120  
aatatccgat ggctgtcct aaagttaggt ttctcacaga aatataccat cccaacattg 180  
acaagcttgg tagaatatgc ctgcacatcc taaaggacaa gtggagtcca gctcttcaga 240  
tacgactgt tcttcttagc attcaggcac tgctgagcgc cccaaaccca gatgatcccc 300  
tctcagaaaa cgtcgcaaaa cactggaaat ccaatgaagc tgaagctgtt gagacagcga 360  
acgaatggac tcgtaagtat gccaatggtg catgac 396

<210> 8467

<211> 384  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-H1  
  
 <400> 8467

```

gggtcgacgg gtattatcca gtgatgttta atacagttac aacaccaccg tgacacatag   60
tatccgttat gtgttcgtga cgatatgata atacgctttg agtgcaaaga tgaaatTTTT   120
tgctgttggc aatggacata cttgtgatag caatcaccct catatgcctc tcatgcctac   180
cgggaaagat ccgggaaagt ctctttcttg ggtagacacg agcttgtccc tcgtcgagac   240
ggttacgacc ggcggggcag ggggaggtat gatgagtggg ggttgtgtct gatggatgtg   300
agatattatc cttgagctaa tcatgcagga aataacttaag cctcctgagt cggccgtaga   360
tcgaatcctg ttccagtaac cccc                                           384
  
```

<210> 8468  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-046-Q1-E1-H10  
  
 <400> 8468

```

taccggtgta gacgggagag tcttaagtag catggaaatt tgcttaaaat cctaatatgc   60
taggtattca agaataataa aattctctta agagtgtgtt gaatactatg agaaatttga   120
tacttgataa ttgttttgag atatggagat ggtgatatta gagtcatgct agttgagtag   180
ttgtgaattt gagagatact tgtgttgaag tttgtgattc ctgtagcatg cacgtatggg   240
gaaccgttat gtgatgaagt cggagcatga tttatttatt gattgccttc cttatgagtg   300
gcggtcgggg acgagcaatg gtcttttctt accaatctat ccccttagga gcatgcgcgt   360
agtactttgt ttcgataact aaaagatttt tgcaataagt atgtgagttc tttatgacta   420
at                                                                    422
  
```

<210> 8469  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-046-Q1-E1-H11

<400> 8469

attcccggga ccacgggggg acaaaagtgt ggcgccagag tagccgcctc gccaaaccgcg 60  
tatcattaat gtggggcggt gacggatgga cggacggtag ttctgtcatt tgaaggcgga 120  
gcaatcacct gactangaa gcgcgacggg cgacgctgac cgtttcgggc ggaaagcacg 180  
cacaagcgag ggaggaggtc tgggtgggcc agggcagtc gactcgtgct tggcaacggg 240  
tcgggtccagc agccggacat gctggctcgc cagcaagctc gcctagctga gcgacgacaa 300  
tcagatgatg gacgtagctt ccaaccagga gccggcgcca ctgtccaagc cggttcatgc 360  
catgttcacc atagagcaag tgcggctgca cttcgacgcc ct 402

<210> 8470  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-H12

<400> 8470

attcccaggt cgacggactg ggtcaccacg cgcgagaata ctccgagggg tcaactgggtc 60  
ggctgcggtg tgaggctgcc gtcgccgcag ggcctggcta gcggtgggaa tagtaggggc 120  
ggtgaggcct ctgcggcagc acagccggcc ataggaggca ggagcatgcg gcacgaccaa 180  
cgctgctttg ggcggtgga gcaagaagac caagaagcac tacggccatt ggatggacat 240  
cgtacgggtc ctggagctag aatcgttcat attgactaag ttgacaaagc cctccgtctc 300  
cgtcaactta gtagggccac aagtcagcct cccaccatgc tgggtcccag ctagcagggg 360  
ggtattcatt tttttgtgcg taataaggag gcacttcct 399

<210> 8471  
<211> 383  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-H3

<400> 8471

cgggtcgacg ggaacggcta catgcaagtc tgatcgattc gaagcagggt gagttcagtt 60

cagctagagg aagacgaagg cgcttcgatc agtccgatct cctgctcctt ttacatgatg 120  
 attactatta tcttaatctt agtgcagtgt tatgtaatat gcaccatgaa ttggtagtgc 180  
 agtgcagtgc agcacagcac atctctgaac ctgggaaggt actactagct ttcttttcac 240  
 tcagacaagt cgggagggg tttcttgta gttagtccgt ttctggcttg tcagtagctg 300  
 tgggtcgtgt cgtgtggatc gagttagtgt tactaccaga aattcggaat gacatggaac 360  
 ccatgcatag catagccgat gac 383

<210> 8472  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-H4

<400> 8472

tacacttaaa aacgctcatc gatttgaagg cccgcacagt atccttaaac ggcaacctaa 60  
 aatttacatc accgaccgac aaataaaaaa ttgatggcca ttgataaggc cctggtttga 120  
 tcccttcggt aaactaccac tgacctgcaa gccattaaat accgtttgtg atgacaaagt 180  
 cattactaac cctgatgggt cattcgcgca tcagtgatga tacaatttgg ccgatcagtg 240  
 ctattcgggt ctgcagtgt ggtaaacaag ctaggattag atataaccga atatacatgg 300  
 agacgaagat gtatccgat gttctcttcc ttggaggaga actagtcacc gctagagagg 360  
 tgggaattca tggatacggc ccaaatatgt 390

<210> 8473  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-046-Q1-E1-H6

<400> 8473

ctaaaacact gcagaatgtt cattcgtgcg agaattggct gccaaagggtg gtgatgagcg 60  
 cgtggcgcgt cgcggggatc gttcatgcgt tggagggatg ggacgagcac gagtgcgggg 120  
 acatggtgct cgacatggac aaagtgtgtt ctgccgcact tctgcacggg tttcgccccg 180  
 ttgctgagggc ttgatcgtct ggttgcaagt cgagtgaata agcgttacgc agataaggtc 240

atatgctcgc tgaagggcca tgctgaggaa gaagaagcag acttattggc tagcagatga 300  
gtggcctata attaattaag tactactact agtttgatct actactacca aggttacttg 360  
gttagctatt actactgcat tattcatctc ctacgataat gaggtaatga 410

<210> 8474  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-046-Q1-E1-H9  
  
<400> 8474

attccccgga cgacggggca gacgtactac gcctgaaacc gggtcactgg gccgccggtc 60  
atcatcagcc ccatcatcag ctatcaactt catcgtaag gatctcagac cctgaggctc 120  
actcaattaa cgattgcggg cggttctaac ctttactctg aatgcgatgc ctggttgcaa 180  
atctacctat atgtgctggc tttactctca aagctatttg gtctatcaca gtaactaaat 240  
caacactaat gtgtacggca gcgttgata gattctcgct cagatctaac acaatcatga 300  
aactgaatca tatttgctct tgaacttttt gtcacccatc gtttgcataa acatatgtat 360  
acttttcaat ttgtacttgt ccggacaagc ggcaaccgtg ccgcccgcga tgcaaate 418

<210> 8475  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-A11  
  
<400> 8475

gggtcgagga agtgaagctc ttctcaccg gcgtcgatga aggtaacgat ggcgctaggg 60  
cttgagagct cgagcgaggg gagtgagatc gagcggggta aatgcagtct gaggaggggtg 120  
aggggtatatt aaagccgagg tgaaaaaccg ctgcgccaag gaaaatggac gaacgtgccc 180  
ctgacccttc tcatcctagc gacatgtggc acccagctac agtgtggtgc aaatcggtg 240  
agatcggtgg tgactagata actcttatcg tgggatgtgg gacattttga gcggcaaaag 300  
ccgaaaattc ggataagaat attttaatgt ttcgtttctca aattcttcag ctgacaagga 360  
tacagtgatg attttgaacg agtttcaaat agaacgcaca 400



<210> 8476  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-047-Q1-E1-A4

<400> 8476

cgggacggct aaaaccccag ctcaagtgcc tacaaggta tcatcgactt ggctcgcgaa 60  
 aaatacttca gatagaatga actagcagct aactatgagt ggtagaggac caanggggaa 120  
 aggaggaaaa ataaaaggaa gaacgcagga ttttgaccaa caatcagtaa ggggttgaca 180  
 cgtgtcgcaa aaataaaagg aggaaaaatc tgggactgac caacaatcag tccacagatt 240  
 ttgttttcag tttagggtoga attttttgcc caataagggg ttgacacgtg tcgctgatat 300  
 ttgagctgct gtatgcaaca aattcgacgg attcgttcga aagttgcctg gacggcc 357

<210> 8477  
 <211> 285  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-A5

<400> 8477

ggtgtccatg ggcgaggacg tgctgacgct ggtggtggag cccaacgtgg accactcgct 60  
 catcatgggg ctcttctgtg tgcattggcct cataaaccac tccatgtgag catcgcatcg 120  
 tacgtgcagg gacagggtgt aattttcttg ttagatgcat gctcagatgc atctatcctg 180  
 cagaccagtc ttcttcttct tttctttcct tggaaaacct tttgtggcgt gatttgttta 240  
 agccttaggt ctgccaatca atttagcaag aataagttta tgttc 285

<210> 8478  
 <211> 257  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-A6

<400> 8478

ggggtgtcca tgtgctagcg ttcttcgctg tcgggtggtgc catcgtggta ctcactcatc 60  
atggggctcc ttgtggtgca tggcctcatc tgcactccat gtgaacatcg catcttacgt 120  
gcatggacag ggtgttattt tcttgtaga tggatgctca gatgcatcta tcctgcagag 180  
gaatcttctt ctttctttca ttctttggga taccttttgt ggcgtgattt atttaggctt 240  
caggctctgcc agtcaat 257

<210> 8479  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-A7  
  
<400> 8479

ccggggccgac gcttcgattt acgtgcgccg ggcaaatacg aatggtccat gctttttttg 60  
caagggattt ttacatctgt gtccttggtt ccttagctct actcattcat ccccgcgctc 120  
taaatttttg ccaattttcc ccaatccctt gccagaaacc ctcataactg ggcacaacga 180  
acattgccgt cgggtcatag gcttgaccgt taactctgac tagtggggcc acgctggact 240  
gtgttgccg ttcaacctga caagtggggc tgcgctgggt ggtgtcgctg tttgaccgtt 300  
gggccgtggt ttcgttgggc cgtcccttgc attaaacgtc tgcgcgcact accaggacaa 360  
aagcctgcta tgcattgcacc cagcaaacc t 391

<210> 8480  
<211> 380  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-A9  
  
<400> 8480

ggctgaccac tgggcgccgg cgaacaccaa caggcgcacc tgaagcgaag cccgaggcag 60  
gcctcgacgg cggcgatggc cgcactgcgt ggcaggggta gaattccggt gcaagcgcgc 120  
gcatgcgcac ggctgaccca attcgggtcaa tctcctaaca caatcgtttc gtttcgtttc 180  
gtttccgtga acctcaatca gcagaccctg tgctggcgcc ggtagtatgt aatgtgtaat 240  
cgctcgtgat agcgagacga cgcaccgccg atcgatogat cgtggtcgag tcgttgcgtc 300

agtgactatg tgcattgtgt ttaacatggt agcgacctgt tgctgtcgcc gactaatcat 360  
caaaatcagc agttccattc 380

<210> 8481  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-B1  
  
<400> 8481

aattcgcgag ccgattgaat ttttacagat actcagccac atattgattt ccttggacaa 60  
gcgcgagaaa ttcacgtgc ttggccttca taactccagt agggatgtga tatttgcgga 120  
acttatacctt gaatttttcc caggtgactt cctcattaat cggccacatg gcttttgtat 180  
tttctacca tatggcagct gcgccttcaa ggtaatgggt tgcaaattggg actttatcat 240  
ttccttcagt acgggagcgc tcaagctttt tctccatggt gcgcaaccaa tcgtctgcat 300  
ccaatgggtc agcaacctga ctgaaattgg gtggattggt cctctgaaaa tctgacagct 360  
ttgagtgatg accattctga tttccatttt gtccaact 398

<210> 8482  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-047-Q1-E1-B10  
  
<400> 8482

ggtctacaat tcccgggccc acgggattaa aaagtaatat gaatattttc cttttggggg 60  
cataagggtgc aactcttcaa ctgtgtaaat attcaagttt ggtcacaata ccttgtcagt 120  
atcaaccaga actgtcaaat gtgaggttga aggcttgtca tgcctcgcca cattagcacc 180  
tggcagatca gaaggtttat tcgtgctttg attctggtaa gcacgatggg aggaaccaat 240  
agctggactt gcagaaggga cagtcagaga agccattgta tttccagaca tttgatgtgt 300  
atcttttatg ctagtattag caggcctact agcancagat gtgccagtac tgaatacagg 360  
aggctccaaa gaaacggctg atcacaaatc tgtggtgtgc tgaaaatat 409

<210> 8483  
<211> 396  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-B2

<400> 8483

attcccgga cgacgggaag gcagaataaa actttaatgg aagctcctac attcaacaca 60  
ttctgggaaa aggatgttgc agagtctgtg cgccaggag atgcgcagcc atttgtcgag 120  
gaagctgtgc tgcaagtatc tgattgggggt ttcagcttgt cagatattca aatgcagaag 180  
aaagaggatc agggagtatt tgaatttatg aagtctctgt tcagtcaggc tgaacgagag 240  
tgggcgggat ttctggggcc aatccacatt tggcaggaa tggatgaccg ggtgggtgcc 300  
ccgtcggatga ccgagtttgc caggaggatg gttccaggag ccactgtcca caagcttctc 360  
gacgaaggcc acttctcata cttctgtttc tgcgac 396

<210> 8484  
<211> 402  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-B3

<400> 8484

cgggagggcc tatggttttt gaagacttct aaatttttgc aacaagtgca tgagttcttt 60  
tgattaatgt tgagtccatg gattatacgc accctttcac ccttccatta ttgctagcct 120  
ctcttgtgcc gcgcaacttc accggtacca tacaccacc atatatcttc ctcaaaacag 180  
ccaccatacc tacctatcat ggcatttcca tagccattcc gagatatatt gccatgcaac 240  
tttccaccgt tccattcata tgacatacat tacttttgtc atattgcttt ttgcatgaac 300  
atgtagtga cattgtatct gtggcaaggc caccttcata atttccatac atgtcaatct 360  
tgattcattg catatcccgg tacaccgccg gaggcattca ta 402

<210> 8485  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-B4

<400> 8485  
 attccccgga cgacggggcg acggaggcga tggacagccg gccgttcggc ggcggcgaga 60  
 gcaagctcaa ggcggaggcg acgacggaca acaaggggtg gtacaagatc gagatcgatc 120  
 aggaccacca ggacgagatc tgcgagggtg tgetgaccaa gagccccgac gcgtcgtgcg 180  
 ccgagatcga ggagtccgc gaccgcgcgc gcgtcccgt caccagcaac aacggcatga 240  
 agcagcaggg caccgccttc gccaaaccca tcgccttctt cccaaggag ccgcgcaagg 300  
 agtgcgggcg catcctccag gcttacgacc tcaaggacgc acccgagaac ccatgaaccc 360  
 ccatcccatc catatagtct cgctcagttg cttcccatca tcatcatc 408

<210> 8486  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-B5

<400> 8486  
 ttccccggttc gacggggaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaaaa agaaaaaaaa aaaaaataaa 120  
 aaaaagaaaa aaatgaaaaa aaaaagagga aagttaaaaa aataaaaaata aaaaaagg 180  
 ggcgtttcaa ggggttcaag ttttatttcc gggttatggg aattttaaac ctttttaaag 240  
 ggtcccaaaa ttttaattta aggggggttt ttttaaagg ttgtatggg gaaaaccctg 300  
 ggttttccca attttaccct ttttgaaaa atcccccttt tccaaatggg gtttattact 360  
 aagggggccg aaagggttgc cctttccaag attttgccaa cc 402

<210> 8487  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-C1

<400> 8487  
 acggggagca caaaaaggcg gagaagcaca agaagaagga cggggagcac aagaaggacg 60  
 gcgagcacia ggaggcatg atggagaaga tcaaggacaa gatcagcggc gacggcaaga 120

aggacggcga ccacaaggag aagaaggaca agaagaagaa gaaggacaag aagcacggcg 180  
 agggccacaa ggacgacgac ggccacggca gcagcagcag cgacagcgac agcgactgac 240  
 ccagctccgg cccgcgctcc ggaaccgttg cagtgtaggc aaaatcaatg atgaacactt 300  
 ggaaaaagtg tgacagacat atatgttgca gggttt 336

<210> 8488  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-C6  
 <400> 8488

tacggtcgac aattcccggt tcgacgggtg tgtgaactcg ttctccacct tgcaggctcc 60  
 gtcgtggtgc tcccacttct ttcgtgtcac tccgggtgaa aacttgatct tcaagatcag 120  
 acggtcacgg cttcctatgg tcgtatcctt cctggtcgtc ttggagtcct cgcttcggcc 180  
 gtatccttgg tggattgtc atctacatgg tggctccag cttatcatca gggtgcttgg 240  
 tcgtcgttgg ggtggtcttt tcagtgcccg gccatcttca tgggtgtgtg attgagtgtg 300  
 gtggtggagt gcgtttgtat cttcttactc gaatgttgtg gtgatggttg ctttatatat 360  
 aaagcagggg accccttttt cgCcaaaaaa aaaaaaaaaa gctaaaaaaa gaaaaagc 418

<210> 8489  
 <211> 77  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-C7  
 <400> 8489

tccgggccga aggggtgtgtt aactcgttct cgacctttca cgctccgtcg tgttcgtctc 60  
 tgatcg tact tgtctct 77

<210> 8490  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-C8

<400> 8490

ttccggggccg acgggcgcg ccaagcggcc cttggcgggc gctgccgccc ccggcgacat 60  
 gggatgccag ctctcctgcy ccaggacttc ctgccaccgt cttgatccag gtaatcagat 120  
 tggcacagtt catgtgcgcc atgaattagt aatgcgcaac cactgcactc acgtatgatg 180  
 agccgacaac gacgatgtgg tggtaaaactc tttttgcaga ccgagaggcc gctgaggcct 240  
 gcttcggggca gtgctatgac ggctgcaaga ccaagactcc ctgccgaggc ctctccgcy 300  
 cggcgccggg atgcccacca cgttagggcc ggtggtcgcc gaccttcctt catccgagcc 360  
 ggacccggat gatgcggtcc gtgcgtcgtc agaggcgccc gaacatc 407

<210> 8491

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-D3

<400> 8491

attcccggga cgacgggcag gcaaagtctc ttgacacaag gatacctttg gtttcattca 60  
 caggaagtac aaaggtaggt caaatggttc agcaacaggt tagcgcgaga tttggtaaatt 120  
 gccttcttga acttagtggg aacaacgcca ttattgtcat ggatgatgca gacattccgc 180  
 tagctgtgcy ttctgttctg tttgctgctg ttggcacagc aggacagcga tgcactacat 240  
 gtcgtaggct gcttcttcac gaaagcatac atcaaacatt tcttgatcaa cttgttgagg 300  
 tttataaaca agtccgtatt ggggatccta tggaaaaggg accttgctgg accaacggca 360  
 actactacat caaaaggaaa gctttttgaa 390

<210> 8492

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-D4

<400> 8492

cggggtggct caggcgcgcy tagggtttcg ggtgctcggg tgctacggct cgggcctccg 60  
 cggttttaaa gggttggccg ggctaattgt ccaggcgagc acggcccggg taggtctgtt 120

gactttttta aaaataaaaa ataattccac ttagaaaaac aaagaaaaga aataactaaac 180  
ggactccaaa aatcctgaaa taaattttcc ccttcctcta aaaatctaac ggacaagggtg 240  
aacattttatt tgggcctcta atgcaaattt tgaaaaacgc atattattcc taattcaaatt 300  
aaaatagcga taaaaactcc gaataaaatc ttatttgatt ttaatattaa atctccaata 360  
tttcttgact ttggggaagt cattttatcc cctccctttt aatttcaaaa a 411

<210> 8493  
<211> 417  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-D7

<400> 8493

gagaggaaaa aaatattttt cttaaatgaa tctagtcaaa ccaaaatatt gatttaaccc 60  
gaatcggatg atttttggag tctgtattta ttggtggaaa agaggcttag agtcaaaggc 120  
taggcaatgt gggactaaac gtagacaaaa atatatgaaa cagagaagaa aagaggcgga 180  
tgggcctaaa ggccttcggc ccgccgcgcg cacgctgcag ctgcagtttt ttttaaaaaa 240  
aattcggcct aaaaatgaaa aggctggcta ggcctggctc atttaagaga ggaaaaaac 300  
aatggggcgc cagaagctac tatactgcgc atgtaggcga caaataaata tgggccgcac 360  
gtacattttt ttaaatagaa acagaaggaa aaccgaatag caaagattaa ataaaaa 417

<210> 8494  
<211> 378  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-E3

<400> 8494

cggggtgaca aattgtaaat aaaattgttg tatcgcgacc tgaatgaatg aaataaacga 60  
aataacgctc ttgttcaacc gtcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagggggc ccaaaaaaga ttaaaactaa 240  
atatccggga aaaggaaatt aaaaaccctt aaaaagggga cacaaaatta aattaaagg 300



gcgactttta aaaaaattca aacgggaaaa acccgggggt aaacaaaata aaacccttta 360  
 aaaaaaaacc ctttttcc 378

<210> 8495  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-E4  
 <400> 8495

attccccgga cgacgggggc gccaaaaact gtcagcctga ggagcaagtc tgattgattg 60  
 atggatggtt catcaagggt agctatatatt gtagggcttg ttatacagag actgtattac 120  
 cactgccaga atacactagt tagcaggtag accagttcca gctgagctgc tgagcaaagc 180  
 tcatcatact actatacatt ttcttcatct acaggggttg ttcatgggtg atgggctgac 240  
 atgttggttg tgggcattct tgtacttttt ttttggaaca gattctttga tgtatttttt 300  
 caaaaaaaaa aaaaaaacca aaaaaaaaaa aaaaaacaat aaaaggaaaa aaaacacaaa 360  
 a 361

<210> 8496  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-F10  
 <400> 8496

attccccggt cgacgggggt gtgtagtggt ggtgatgctg cgctctgacg aaacatctgt 60  
 gacggtgtta ctggcaatga atttatagga ttttttccct cttcaccttt gagttagtaa 120  
 cttttctccc caaaaaaaaa aaaaaagaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaggag caaaacaaaa ggaataaaag ctaacaacaa 240  
 aataaaagca acgtcaaagt ccctgaaacg tagtcaacca aattcaattc atcgagaagt 300  
 cgtaaagaa aatacagaga ggtaaaaccc tgtagtcacc cagtataaca gcattgtaac 360  
 aaaacccggt gtcaaaagca agaggaatac ccaaaaggcc cgtaccaata gcggtgcaca 420  
 agaattgggc a 431

<210> 8497  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-F2  
  
 <400> 8497

attccccgaa cgacggggga acgatgagat catggatagg ggaacttttg ccaacattcg 60  
 cattgtgaac aagttcttga agggagaggt tggcccaaaa accgtccatg ttccatcagg 120  
 ggagaagctt gctgtttttg atgctgctat gaaatacaag aatgaagggc atgacactat 180  
 catcctggct ggtgctgagt atggcagtgg aagctcaagg gattgggctg caaaggggtcc 240  
 aatgcttcag ggagtgaagg ccgtgatagc caagagtttt gagaggattc accgtagcaa 300  
 tcttgctgga atgggcatcg tccctctatg cttcaaggct ggggaggatg ccgacagtct 360  
 tggcttaact ggccatgagc gttacacat ccagcttccg actgatgtga atgaaatc 418

<210> 8498  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-047-Q1-E1-F4  
  
 <400> 8498

gacgggaagc caaaatgatg taaaatagac ccgtggccat aggttttact agtggcttct 60  
 ctcaagatag catatattat ggtgggtgaa caaattactg ccgagcaatt gatagaaaag 120  
 cgcatagtta tgatgatatc taggcatgat catgaacata ggcatcacgt ccgtgtcaag 180  
 tagaccgaaa cgattctgca tctactacta ttactccaca catcgaccac tatccagcat 240  
 gcatctagag tattaagttc ataagaacat agtaacgcat taggcaagat gacaggatgt 300  
 agagggataa actcaagcaa tatgatctaa aacccatctt tttatcctcg atggcaacaa 360  
 tacaatatgt gccttgctgc ccctgctgtc ac 392

<210> 8499  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-G2

<400> 8499

cggggatgccg cattcgtcct gttacatcgt cttcacttca tctcgcccgc cgtcaaaacc 60  
acctccaccg gcacagaagt cgtgatgatc gatgtctccc caagctcagg ttggatggcc 120  
accgtccgcg gccgatgcct tgccctttcc cttggaacag gttgtcatgt ggcgactgg 180  
aagcaccat tcacagtga actcctccaa ggctgcgagg agcaaggaca tgggtgcattg 240  
atcgcatgt tgtagaagg taaatccaac cactcacgcc agagccgaga caccatacct 300  
gcatgcatgt tggtgtgctg tgggtgtgca tgtactcctt ttgtaccgaa atatttctag 360  
ttgaaaagtt atcacgtaaa atgtaaccgt ttttaaggaa agaaaaa 407

<210> 8500

<211> 371

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-047-Q1-E1-G4

<400> 8500

gattcttcat ctatagtgat ggctgcacca attttacgag tcactaccat gcatatcaat 60  
tcggccattc ttgctgcaan aagccctttc tttttcaagc ttttctcaa cggcataaaa 120  
gagtctgaca agggacaggc aacacttcga atagctgatt cagaggaaaa tgccttcatg 180  
gagcttttgt actttatgta tagtggaag ttgacaccaa caactgagcc cactcatctg 240  
gttgatatct tgatggctgc tgacaaattt gaggtcattt cttgcattaa gctttgcggt 300  
cagttgctca caagcttgcc tatgacccca gaatctgcag tgctgtgcct agatctacca 360  
tattccattt c 371

<210> 8501

<211> 320

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-H1

<400> 8501

cggggaggca gatggtcggc gtatccttgg cgcgggatgg ctcagaagaa cagaccaagg 60  
 cgatgagata agaggagggc tcagaattgc ctgccaccag tgtgcgtgcc gtccagaaga 120  
 agcggcctgc atcaatggct ctgcagttgt tctacgtact agtacttctt tgttcgaaag 180  
 aaacacaatt ctgtagttga tcgtggcaaa attctttgac atggatccac caacggggca 240  
 tccatctgaa cttttgttgc agcatcagta tgtgcactgt ttaacccgca aaaaaagca 300  
 tgtgctatgt ttttttggcg 320

<210> 8502  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-047-Q1-E1-H12  
 <400> 8502

gcgggggtcac cgggcccaca tgtacgccga cggttgactt atgccgacgg ccgctgtcgg 60  
 cgtttattaa tctaggtcca tggttgatgt gtgaatactg ttgccatcgg ggtacatggg 120  
 ggtagcccga cggccatgat aagccgacgg ccacggctag gctatcgccg tatttggcgg 180  
 ttggagcacg aagaccatca agcactacgg ccattggatg gacatcgtag ggtcactgga 240  
 gctagaatcg ttcattattga ctaagttgac aaagccctcc gtctccgtca acttagtagg 300  
 cccacaagtc agcctcncag catgctgggt etc 333

<210> 8503  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-047-Q1-E1-H2  
 <400> 8503

attcgcgggc caacaggtgg tttatgtttg ccgatcaaat gatgtacgtg ttccctttcg 60  
 gtcaaaagat gattctgggc tgtctccaaa catcacagaa aggtaatgtg gttgggaaac 120  
 tgatgatgcg catgccagga cgtgctgatt gtacaacttg atgtaccaat gcattggtag 180  
 ggtaagacgg cttttgccat gtcgggtgcg ctcgcttggc aagccacaag tcaataaaaa 240  
 gtatatattg tggtgtttgc ggggtggaga tcgcacggga acaatctatt tgttctattt 300

tgccccgggtt ctccaccctg ccatgggtgc tctgtccttc tctgtgttg ttgattccac 360  
cgcatcatct gaagtacacc gcgatcctac ata 393

<210> 8504  
<211> 376  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-H4  
  
<400> 8504

ggcgaccgag gcgatggact gctgaggggt ctgccttggg gaaattacgg gtgcaacgtc 60  
gtgtccaatt gctgggccta aagtccaatc ctttaaagggt tcgagttccg ggccaaaatt 120  
tgtaagccgg cggcgcaaca acaccattgc cccgggcatc tacaacaacg gcaccgaatc 180  
cgtatccata taccaccacc aatccgtgtc catataccac caccgatcca tatccatata 240  
ctaccaaccc caacagcccc cacaacctca actgcagctg catcctcaag cacagcagcc 300  
tcaacaaccc caatcgcaac tgcattcatc tcaatcacag cagcccctgc atcctcaact 360  
gcaaccgtat actcag 376

<210> 8505  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-047-Q1-E1-H6  
  
<400> 8505

ggccgacggg tgtacccagc ggagggcatc tatgccaacg ctgggggtcta cctcttcaac 60  
aacgccacca gcgccgggt caacgtcacg aggtctgtcg tccacgagat ggactcctcc 120  
tacaatcagg cctacatgac ctactgttaa aaagaaaatg caaatattat ttttgtttag 180  
taaaaatatg atagatagca cattgtatgt actgttttta gaccaaggaa ggctgtctca 240  
tttcttcgtt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa 360  
aaaaaaaaaa aaaaaaaaaa aataatataa cataaaaaaa aaaaaagggg gc 412

<210> 8506  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-047-Q1-E1-H8

<400> 8506

ggcgaccgaa gcgatggcct gccgggcggt cggcggcggc gagagcaagc tcaaggcgga 60  
 ggcgacgacg gacaacaagg ggtggtacaa gatcgagatc gatcaggacc accaggacga 120  
 gatctgcgag gtggtgctga ccaagagccc cgacgcgtcg tgcgccgaga tcgaggagtt 180  
 ccgcgaccgc gcgcgcgtcc cgctcaccag caacaacggc atgaagcagc agggcacccg 240  
 cttcgccaac cccatcgctt tcttcccca ggagccgcgc aaggagtgcg gcggcctcct 300  
 ccaggcttac gacctcaagg acgcacccga gaacccatga acccccatcc catccatata 360  
 gtctcgtca gttgcttccc atcatcatca tc 392

<210> 8507  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-A11

<400> 8507

ttctgacaag caaatgttag attgcctagg agaggcacac acaccaccag aaccgctat 60  
 acagctctcc acggcaatgc ttttgagcgg cggagcgtca tcacactgct cagctttaac 120  
 tgatttcctt ttcttgcat aggtcaaagc tgctgcattg atgctaggag cattattaga 180  
 tgaattctca tgatccacta acagcgcttc tgcgacggtc gcgagcaa at caaacgggga 240  
 catctcatct ttctttctcc tggctgagcg tttccctga atcatcaccg ggcgttaata 300  
 cataatatcc agcacgaaaa ttgcgcgggg tcatggcagg tagtacagga tatc 354

<210> 8508  
 <211> 120  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-A2

<400> 8508

tggactgttt ctagggtata ctccatacac tatgcattat gtgtcaattt cacttcgcc 60  
 cttaacagc tccatgcctg cataggaggt tgcacagct gactgacgtt atccaccaca 120

<210> 8509  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-A5  
 <400> 8509

tcccagcggg actaccggcc acatgaccgg tactaccggc ttgcctgcgc gtagtgaagg 60  
 ggggtttcac ctcatgtatc ctctcccact tacccttcg tggcttagac tttaaataga 120  
 ccacctccac cttctttcta ggggaagcaa atatgatagc tcattcttag gtgagctttg 180  
 ctctacctc tacctaagag gcaaggctct atacactaga atagttttga tgtgtcccg 240  
 caactcacag aacgaggaga agctttctta gtatgccgtc tcccccgcca acgggcacgg 300  
 tggcttgag gatgaggatg agcttgctta ctagtacgcc ttatgccgc tccctggccc 360  
 aagcgcgtgg ttgatcacag gacaaggaga aaattttact actccgtcgt ttactcctca 420  
 acc 423

<210> 8510  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-A7  
 <400> 8510

cgaggacgaa aacagctaca aatggggccag ctgcctttgg ttcagatatg atgaaacttg 60  
 agcctgctaa cgatggggaa aaagaaagtg ctgcgcataa gaaggggaaa gataatgagg 120  
 agggtaataa ttctgataaa ggtgaggaga atgaagaaga ggaagccgct cgtaaagata 180  
 ggctcgggct ctctaaaagg ggcattgatg acgatgagga aggtggaaaa gatctagatt 240  
 ttgatttga tgatgacatt gagaaaggat atgactggga acatgaagaa acattcaccg 300  
 atgatgacga ggctgtgat attgaccagc aggagcgggc agatttagct cctgaaattc 360  
 ctgctccacc tgaaattaag caggatgatg aagagaatga ggaagaagggt ggctgagca 420

agtc

424

<210> 8511  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-048-Q1-E1-B1  
  
<400> 8511

gggggcatgg aggcgctcaa aaccgccacc ctctttctta aagcgtccgg ggacgcgagc 60  
ccgggccttc agaagcagcg ctaccagat ctgaccaagg ccgacgaggt ctgctttgaa 120  
acctgctaca aggagctgac caatggcggg gagaaactcg acaatttggt cagagcaaaa 180  
gagggctccg acgatatcgg catggcccag ctccccgaaa tccgtagctt catcaaggag 240  
aacaacgggt cgcattgcca gtggaattgc gatagggtgc gccctgcaaa tgacaagaag 300  
acacccgatg atgtctccaa gaagaacgat gctgagaagg ccatggctgt cctgnagggt 360  
cttgtcaaca aagtgaccaa ataaagaaaa acaaaccctc attgcatact actagct 417

<210> 8512  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-B10  
  
<400> 8512

cggccgcgag aaacacggag gcatcgggcg gacgagacgg cgatgacgag caggcggcca 60  
tgtcatgtct taggggtgag tggtggcaat aagccatgca tgtgatggtg gcgaccggct 120  
tgaaggcaac taggtcaagt ctgtaccgtg tgtgtgcact caagtccgac acgtacggca 180  
tagccgatgg caagtgtgcc ggccaagtct gctagatgca tgcacgtagt tagttggagc 240  
gcatctcatg ctgcaccatg tcgttgccgt tgaggatga tgcgcatgtg ctatatgtac 300  
gtgcatgcat gtaggagtca gcaagaagtt agctgggttag tggccggtgg gcgtgcgtgt 360  
gtggtggccg ggtagtggt gtgcgtgcat ctgtgctagc ccgggtataa aa 412

<210> 8513



<211> 378  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-B12  
  
 <400> 8513

```

gcagggttcaa gggaaagatg cgacggagtt agaagttgca agtatgaatt gttatatctc   60
gacctgacag aattatacta aataatgctc ttgttcaatc gtcaggctcc ggttcaagta  120
ctgcaaaaaa aataaactag atcagattta agaaactcaa gattatgttc aaaaagaagt  180
ttgaatatga atctgaaaaa aaatttgaaa ttttaaaatc tcaaaaaagt tgatgtgaca  240
ggtgcactgg atacgtgaaa acaagacgaa cctataggct caggtttcat ctaatttgga  300
tacatgagtg aaaacttatg gctatttgaa aaatcatggt taaacggttt tacggaaaaa  360
aattagctac gggaaaag                                     378
  
```

<210> 8514  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-B2  
  
 <400> 8514

```

ttcccaagtc cacggggtcg taccaaggca agtatcagct tcgactgctt caccacaggg   60
aaggcggtgc tgatccgcgg gttcngtggc caggcgaatg caatgtaccc gccctacacg  120
gcagagaaac agaggatctt gaggggcctc atcanaggca ctttctttgc gctgacctt  180
gcgctcctgg ggttcccaag ggagaagcgt tagctgagtt gagctccctc ctttctccag  240
tagagcatag caggattggt catgttcag agggcgatgt ggtgcacttc tgcaactgtga  300
agcgccagtg cgcgagtgtg ttcaacaggt gtaaaatatg ggactatcat cggatttctg  360
gatgtaattt aattttacat aaataaacct ggtttgcc                                     398
  
```

<210> 8515  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-B3

<400> 8515  
 cggggaccaa aaacataccg gagtgaccgg cacggggacg cacgacatcg gcgagaagaa 60  
 gagcctcatg gagaacatca aggagaagct ccctggcggc catggtgaca accaacagac 120  
 cgctggcacc tacgggcagc agggacacgt cgccacgggg acgcatggca ccccggcgac 180  
 cgggtggcacc tatggggagc agggacacgc tggagtgacc ggcacgggga cgcacggcac 240  
 cggcgagaag aagggcctca tggagaacat caaggacaag ctccctggtg gccacggtga 300  
 ccaccagcag accggtggca cctacgggca gcagggacac accggcgcg cgacacatgg 360  
 cccccggct ggcggcgga cctatgagca gcacggacac actggga 407

<210> 8516  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-B4

<400> 8516  
 attcccgagt ccacggggtc attgaaaaga tcgacggagt gtgcacggac gctaaatctc 60  
 atgtcagaac aatgtcaggg acatcgcaa cttcattgat gtagcactga tgatcattga 120  
 aactcacttc tatattatca tgtcagggtta gacccaatat agtgaccctt ccagtcagtc 180  
 gagaattgca taaagaaggc tacacccttg aggagtcctt tacatgcac tagaggttta 240  
 ctactacat gatacgtgct ctagacttca gcatcatagt agatatgagt cccacggtt 300  
 ggattcaaca caatcattct gtgctttagc caccttttga gagagacaca catgattcag 360  
 aactt 365

<210> 8517  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-B6

<400> 8517  
 cggacatcgg cactgcgccg tgttgccctg cacaaccaag gagaacctaa aaaatgccag 60  
 gaaaaggaaa actccgttcc ggttaatggc ttcaaccaag ccctccctcc aaaaggggca 120

acgcttgacc ctgaccaaga cccaagtac caccgtaacg caaataatga tgatggtttg 180  
 ccaaagtagt atgtcctccg ggcaaggctt aatctgcttc ttcaaaaatt ggctgagaat 240  
 gaccccaacc cgtatgggac accccaacg aagaaagaag cagtctaaac cctgcccacg 300  
 gtcaaaatct aagaggttgt caactgttca atctgtcttg atgatcttga tataagggtcc 360  
 caccgctaagc aattgccctg tgaacataaa ttccaccac catgtatcct g 411

<210> 8518  
 <211> 323  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-B9

<400> 8518  
 aaccccccaag ggctgttcaa gaaactcaaa tccaaatttc aaggccggct tcgggcaatt 60  
 tgggccctgg ttgctcgct cgcacgacct caaggaaaga acagctgttt tcttcaagg 120  
 attcaagaac aatgacacca gctatgtcgt cctcatgtgc aacgacccta caaggctcgtc 180  
 attcgagtcg cagatctaca ggccgacctt cgccggcttc gtcaacatcg acataaccaa 240  
 gaccaagaag atcgccctca ggacattgat cgaccactct gtgggtgaaa gttttggtgc 300  
 cggcggcaag acgtgcatcc tga 323

<210> 8519  
 <211> 195  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-C11

<400> 8519  
 tcttgaaacc cgatagccca gaaggaaagt cccgtaccaa aaaggaaact ggttaaataa 60  
 taaatggggc aatttaagtt ttgccaccat ccaaaccgaa aggaaaacct ctgtccgggc 120  
 gaatttaacc aaaaaatcat ttatactgga aatggaacag tcccgttcaa aggatccatg 180  
 ctgacaaatg cctca 195

<210> 8520  
 <211> 377

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-C2

<400> 8520

ttcccagagtn cacgggggtcc gtcgacggca tcgctctcca ctgtgggagg atcgccactt 60  
 gcagtgaac gtgatcacg ctccaacctc cgtatcgctg cgcatacagg tgacctgac 120  
 ctctcaccat ttcactcact ctctcagcaa gctccgccat catgatcctc tgctgtgang 180  
 gggaatccgc tgtcgagcac aagtcctcgt gtccatcacc gaggcacat catatcctca 240  
 caccacggca aatggtacac acatactacg cataatgagg ggatgtacgc tattgcagaa 300  
 tggcaccgtc actctcccgt tttacacact ggccggacct agcctcccaa ccccaaaggc 360  
 cttagccctg ctgacc 377

<210> 8521  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-C3

<400> 8521

acgggggtcca tgaatgggcc gaaatcgtgt cagcaatcca ggactcagac ttctggcagc 60  
 aattcttttcg gatcgagtcg gagtttgagg aaatcatcta tcaggatgtc cttcggacct 120  
 cggggcattt ctacctcaa aatcaggagt caaatagtga catcgagaca atgcaacaaa 180  
 tgcaggatga caacgcccgt tctttcatga ctcccaggat acagggcggc ttcacgaga 240  
 cgccggtccc ttgattcgag ttgtctagtt ctgaaacacc gattgggtca tgttgaatt 300  
 aaacattagt gaactgtac tatgtctctt tggttttgag agtcgttcaa cttagaagta 360  
 atcgatgcta tcaaagtctt gcttttctct tccgattggt ctgttgata agtatatat 419

<210> 8522  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-048-Q1-E1-C5

<400> 8522

tcccgggtcg acggggcagt cgatgccagg atgctgattg tgatgagcat taagctgaag 60  
ctcgtctcttc tcggcgttcg caagagacgg cgtgacctgt gaatacatcg agtgcggcat 120  
gtaacatagg caaatagcct gcctgaagag tgagggagag aaaacctgca tagattttgt 180  
tctggcggtt ttgtgtgtgt ttctagtgtg tgtttgggtt tattttccgc gcttatggat 240  
gtacattaca ggtatataag acagcatagt gatgatgtct tcttcatggg tatggaagtg 300  
aaagtaatgt tatggaagtg aaagtaatgg tatgaatgct gtcttcatgg ttataagaca 360  
gcatagtgtg gatgttttag atacaanana aataaaaaaa aaaaaaaaaa aaaagcggcc 420  
gctct 425

<210> 8523

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D10

<400> 8523

attcacgggt cgacggcgaa cgtgatgacc atcttcgagg aggaaggcgg gcggccggac 60  
gccatcatga tcctgacggt gaagcgcgac aacatctgca gcttcatctc gggagaccaa 120  
ccccgggcac gtgcggtctt gggagaccaa ggacagccag ctgacgatgg tggcggacga 180  
cctgaatccg cgggcggtgc tgacgtgccc ggagaagaag atgatccagc agatggtgtt 240  
cgccagctac gggaaccgcg tggggatctg cggcaactac acgtttggca actgccacac 300  
gcccaaggcc aaggagattg tggagaaggc gtgctggtgg aagaggagct gcctgctggc 360  
cgtgtcgcac gaggtgtacc gcggggacct caactgccg ggcaccac 408

<210> 8524

<211> 351

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D12

<400> 8524

cgaaaccatc aaccagaact acaccgtgtg aggagtatcg gcattggacc aacaaacatg 60

acatccgtat tggagcgaaa ttggaatgga cccccctta aaaattttcc cggggaatga 120  
 atgaaacaaa catggctgat ctgacaagcc ccaagttgta aagtgtacc aaatatatgg 180  
 tttcggttgc cgtcttcta gagaggtttt aatgttcaag tggagttata cgtgttttg 240  
 accacggcgt ggttgaatc gttttcgcgt tttaccagcgt ttcccctaac tagtcgggtga 300  
 tcttgcggaa gcaagaggag atataatcac tgcaaatttt ctgccccaaa a 351

<210> 8525  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-D3

<400> 8525  
 cacggggacc caatagcgat ctcaaggctc atgccaaagc tgaacaact cgtgtcagg 60  
 tacgcatagc tatctggcgt cggcctcaac tcgatcgcag aaggatgcaa ggacctggag 120  
 gtcttgacc tgtttggtc cgcgaatttg acgagcaggg gcatagagca ggctgtgtct 180  
 aacctgaaga acctggagat gctggtgaag cccaactttt acataccgag gtcggccttc 240  
 cacatggaga ggtacgggca ctggcagtta tacgacgaga ggttccagac aaacgtattt 300  
 cagatatgaa aagaacaacc ctctgtttct cagggtcgcc tctgactgac aacgtctcgc 360  
 atgctcgtta ctgttatata ctgtatgtgt a 391

<210> 8526  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-D5

<400> 8526  
 cggcgaagga ctcccggtc gacggacgcc accaacgga ccaagtacga cacctacgtc 60  
 gccagtctca ccgagtcgct ccgcgtcatc tccggcgctt tcgaggtcca tccgtcaagc 120  
 ccgccgccga agaggtcaag gggatccccg ccccgagct caagaccatc ggccagatcg 180  
 acgccgcta caggaccgcc gccaccgcc cgcacgtgc cccggtcagc gacaagttca 240  
 ccgtcttcga gtccgccttc aacaaggcca tcaaggagac cacgggcggc gcatacgaca 300

actacaagtt cgtccccgcc cttgagtcgc cgtcaagca tgcctacgcc gccaccgtcg 360  
cctccgcgcc cgaggtaaag tacgccgtca ttcaggccgc cctg 404

<210> 8527  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D7

<400> 8527

cgggtcaaaga ctcccggtc gacggggttg agcaaactag gaaaagaatt tgaaaacgat 60  
cttggagaag acatttgact gatgataaat cattcttacg tcaaactttg aaaagaattt 120  
gcgaatacct ccgggaaaat aagaagagtc aggtaagatc ctggaaaaga catgtgggtt 180  
agggccact caaaagaaac accgtagaac gattgcttga aaagagagag agcgccggtt 240  
gaattaaatg gcttgaatga gataacaacc tcgaaatatt ttgaactgat cttgaaagac 300  
gagacgagcc ttttgagata tcttgagcac tccgggacaa tagaatagcg agagatgaac 360  
gattaagaat tgcaccggca tgagaaagca ttgaaatagc gaaaagaata tgatcacaca 420  
ccgaaag 427

<210> 8528  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-D8

<400> 8528

ccgggtcgac gggcattcgt acaccttgat ttcgagtgtg accacaagcc agagcactcg 60  
atcctcagca agcttcctag cagccagcct tgattaccat ctgaattcac tgtggaaaac 120  
gcaagatggt ggctattttg cttgccgtgc aggattcgct acagtacatg gtgtcttgcg 180  
ctatatggaa gggctgaagt tgagctaggc attgttggcc atctaaatga gataagaacc 240  
agcgttggag actgtataga cttgttttgc ggagccctct aagtgtcatg tttcgagtaa 300  
aagtaggtta cttttgcttc ttgaagctgt cattgtttgt ctgccacgag ggctgcaatg 360  
tggaatggt tgccacaaaa agaaagcaag cgatttttgt gtgctcaaag tcagttttgt 420

<210> 8529  
<211> 269  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-D9  
  
<400> 8529

gcctcttcgg taccgtgcat tgccctttct caccttgaga gttggtgcaa acttcgccgg 60  
tgcattaaaa ccccgatgata cgatatgctc tatcacacat aagcctcatt atatcttcct 120  
caaaccagcc accataccta cctatcatgg catttccata gccattccga gatataattgc 180  
catgcaactt ccatcatcat catatacatg acttgagcat tcattgttat attgctttgc 240  
atgatcgtaa gatagctagc atgatgttt 269

<210> 8530  
<211> 383  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-E1  
  
<400> 8530

cgccgaccaa ggattctatc aatgtatcat cagtatcaat cactacatga caccacacaa 60  
cagatatgct gctgtcagca gtcctctcta aatagacact gcaattatcg tataagtaca 120  
tcattgctgc tgtcagcagt gctctctaaa tagacactgc aattatcatg tacatcattg 180  
ctgctgcaat gaaccattaa gaattattta aaatctagcc taccatctgc gttgtcgtca 240  
acagaggggtt gaggcggagt taaaaaatct gtatgagaaa ccgagggatt gtccgagtca 300  
gcgacatctt tgttatcttc agagctgtca gaagcagctg agatggcgctc acctgattct 360  
gaatgtgttc tgtccacata tgc 383

<210> 8531  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-E11



<400> 8531

tctacgaatg aaacggatta catggaaccc tcggaggaac cccatgaacc aatttgggtg 60  
aaggatttca tcaccgacct aggagtcata cccaatgcgt cggggccaat caaactcttc 120  
tgtgacaaca ctggagctat tgcccttgcc aaggagccca ggtttcacaa gaagaccagg 180  
cacatcaagc gtcgtttcaa ctccatccgt gaaaatgttc aagatggaga catagaaatt 240  
tgcaaagtac atacggatct ggatgtcgca gatccgttga ctaaacctct ctcgtagagca 300  
aaacatgata aacaccagaa ctctatgggt gttcgattca tcacaatgta actagattgg 360  
tgactctagt gcaagtggga gactg 385

<210> 8532

<211> 386

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-048-Q1-E1-E3

<400> 8532

cgggacgttg aaaagctgaa atggaggata gtgaagtggc tgaagcccg tgggcatatt 60  
ttcaatcagg gaatcgtgcc ttccacagtc tggggattca anaaggaaat tgaacccgac 120  
gcacaaccgg aagccaaggt tctacaccaa ggtgtttaag gaatgccact cctatgacca 180  
agaggggaat tcctttgagc tttctctggt aacttccaag tgcattggag cttatgtgaa 240  
aagcaagaag aaccagaacc agatatgttg gctgtgggag aaggtaagt gcacagaaga 300  
caaaggcttt cagagattcc tggacaatgt gcagtacaaa tccactggaa tcttgcgtta 360  
tgagcgcgtg tttggggagg gttatg 386

<210> 8533

<211> 160

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-E4

<400> 8533

acggaactct gaagagaaca ctaacctttt tgattccgcc atggcaaagg gaaagcaaac 60

cgtaaagaag tgaacaagaa agaaaaggca aattaaattg caaagggttaa attggggaaa 120  
 agaaaaccaa aagcaaattg caagttataa aatgccaagg 160

<210> 8534  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-E5

<400> 8534

cggggtcgac cgaggagagc tgagctgacc aactggtttg cgccatgtca taaccgctcg 60  
 attgcggcag ctcatggcaa ctcatgacc tgcagcatag aatctccatg ggagacctgc 120  
 cgtctggttg cacacttcaa tcggcataca acagatgacc cgttcatcag actgtataca 180  
 aaggccaacg atggctcata tatcgatcac aaggagatcc ccctgggttg gcatcactac 240  
 gacgcggatt gaaacttcgg ttcatgccag gcgaatgagc tgctcaacca tctcgagagc 300  
 gtgatcgcta acaaccgggt cgtcgtgaat acgtgccatt acatcgtggc ggttcacact 360  
 cagggcatca gc 372

<210> 8535  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-E9

<400> 8535

gcccctcccc tccaattgca aggcgcccaa atccggagtt ccgggccaac cgatctaacg 60  
 ggtaaacctg gcccgaaaca ccaaacccaa ccgggggataa ccaccaaagc ggggtgtgga 120  
 aaaatagaaa aaggaatttc tcgataagtt gatttcgagg taatatttgt tctcccgct 180  
 cggttcattt gctgtataac catcaaactc ttgatataca gagttttgtg ttttaacttc 240  
 cagtgtgtgt gttcatatat gactaatata ttctcccca aatgatataa aaaaaaaaaa 300  
 aaaaaaaaaa aaaaaaaaaa aaagaaaaaa aaaggataag aagggt 345

<210> 8536  
 <211> 377  
 <212> DNA

<213>       Triticum aestivum  
 <223>       unsure at all n locations  
 <223>       Clone ID: LIB104-048-Q1-E1-F1

<400>       8536

```
attccgagtc cacggggtca agaaagagaa cgacaacatg cagatcgagc tcaggcatat   60
gaaaggcgag gatgtgaact ccctgcagcc caaggaactg atcgccattg aggaagctct  120
cacgaacggc cagaccaacc tcagggacaa gatgatggac cactggaaga tgcacaggag  180
gaatgagaag atgctggagg aggagcacia gctgctggct ctgaggatgc accagcagga  240
cgacctgagc agcggcatga gggagatgga gctcgggtac catcanggtg nggatttcac  300
ttcccagatg ccgttcacct tccggctgca gccagccac cccaacttgc angaagacaa  360
gtatgccacc gaatcct                                     377
```

<210>       8537  
 <211>       401  
 <212>       DNA  
 <213>       Triticum aestivum  
 <223>       Clone ID: LIB104-048-Q1-E1-F12

<400>       8537

```
cggctgatcc gaatgataat tgtgatatca ggattaggag ggtgaatggt acagctaadc   60
ttgatatttg tattagcagg tttgagtttt gcatgtagtc tactccattg tggagttcgt  120
ccgacgaaag ctttatgtga tcgcgccaaa gaggtgagat gccagaacgc cgtgtgacgc  180
ggcgagcacg gcgagatgcc gatgggtgctg cgttagaagc ggcaagacgt atcacaggct  240
ggagccgtga tggactgcat caaattgggt cgggtgaacc ggccggtcgt tctgtttggt  300
ggactacctg ttcattcgctg agttcgttta gtcctagccg agagtatcgt tgctagtact  360
tgatgcatgc atgtagttgg cctggtcaca agtggttacc g                                     401
```

<210>       8538  
 <211>       409  
 <212>       DNA  
 <213>       Triticum aestivum  
 <223>       Clone ID: LIB104-048-Q1-E1-F2

<400>       8538

acgggggtccc tcaatgaacc tgaggggaca gagtaagtgc tctcaatcat attttcaaca 60  
catgacaaca ttttcttatt gtacacaatg gaatcatttg attcttttgc aaaaactgga 120  
ttcttcaagg gaaagggcct taaaccgaac aacttatcac ggtcccgttg aaggattttt 180  
ggcggggcct attctgcccg cggccagaca gggaccgca gcagcgggtt ttggccatga 240  
gctgggtcca ctacgaggct tgcaacaacg cggagtacgg gacgaccgct aaggccgtga 300  
tcaccaaatt ttgggtaagt tctcttctga atcacttgct ttcagtttcg ttcatagttt 360  
atcattgaat cactcaactc atgccttggt tgcctccggt ttttgcattg 409

<210> 8539  
<211> 272  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-048-Q1-E1-F3  
<400> 8539

aaatactcct atgtttttct ggaaagaacc ctgtatggta aaaagtattt catttggtta 60  
ttcgttggtc gttatgagta atatataac tcttgggat taataaatca tgggaagata 120  
aaagcacttg gcgtatacgt atttgacgtg ccaaactctg tgtatccagt gtgtatcgg 180  
gtacgcattt gagacttcca aacgcgtagc acgtgtgaaa gtaattgcat ctatagccga 240  
cttcacaaaa gaaataaaag aaaaaagaca aa 272

<210> 8540  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-048-Q1-E1-F9  
<400> 8540

gaaaccgaaa aactttcgta aatcacaaat ttacctcaat ggggaaatgc atttcccaa 60  
cattaagcat ttcaaatttc tttttgacag taggtagagg tatttgaaaa cttccaatag 120  
tgattgtcgg agatttttca ataacattaa taccattcac ctggaattgt ttcttcgaaa 180  
agtgcaccgt atgctcatta ccattgatat gaaaagtgat cttgctttta ttgcaatcaa 240  
taacagcccc tgcggtattc aagaagggtc taccaaggat aattgacatg ttgtcgtcct 300

cgggcatctc aagtataaca aaatcagtca aaatagtaac attagcaaca acaacgggca 360  
catcctcaca gataccga 378

<210> 8541  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-G11  
  
<400> 8541

cggcgggttcg gaggaatacc tctgaacgta ttcggcttgg gcattggtgg gggatgcgga 60  
tttggccttg gtttaggatg gggctttgga actgcttatg gttgtcaata tcgatcttca 120  
agggtccagt ttcagggcat tgagtttcag aaaaagtctg aaggagatga agcaccaaag 180  
cttgttgaaa agtctcgtcc ttatggctag tatagctgcg atcatacaat tggcacaggc 240  
aatgttacca ttgccccctt gattgtagtc aattgtctac ctggaaagtt gtttgaaagc 300  
attttgatgt tttgatgaac ttggacgttt tcatggtaac ataatgagga taatccatgg 360  
tacttttttc gtttcggaaa aacaaaagaa acacaaa 397

<210> 8542  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-048-Q1-E1-G12  
  
<400> 8542

ggttgagaag ctgattggca ggatagtgaag gtggctgaag cccggtgggc atattttcat 60  
cagggagtcc tgcttcacc agtctgggga ttccaagagg aaagtgaacc cgacgcacta 120  
ccgggagcca aggttttaca ccaaggtggt taaggaatgc cactcctatg accaagatgg 180  
gaattccttt gagctttctc tggttaacttc caagtgcatt ggagcttatg tgaagagcaa 240  
gaagaaccag aaccagatat gttggctatg ggagaaggtc aagtgcacag aagacaaagg 300  
ctttcagaga ttcttgaca atgtgcagta caaatccact ggaatcctgc gttatgagcg 360  
cgtgtttggg gagggttatg tcagca 386

<210> 8543  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-G3

<400> 8543

cacgggaacg ccgtaaacgc cgcacgccgc gccggcgctcg acatcgacat cgccaacaag 60  
 cataatgctg gaacaaacaa agctgctcat agcacaacat cgctcaatac aaaaaggctt 120  
 gatgatgata cagagaatct tgctcatgag cgtgtgccgt cagacctgaa gaagagcatt 180  
 atgcaggcta taacggacaa taggctcaca caggcacagc ttgcacagct gatcaatgag 240  
 aagccacaag tcatccagga gtacgagtca cgcaatgcta tcccaaacca acagatcatc 300  
 ggcaagctgg aaagggctct tggcacaag ctgcgaggca agatgtgaag ccgctgcat 360  
 ctgacaggag tcgaggcttt caacagagct tggctgggca agtttaccgc taaataaag 419

<210> 8544  
 <211> 310  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-G4

<400> 8544

gtaggagtga tatgtcaagt agtggacaga taaccaacc actggatgtg gttttcaggg 60  
 atttttgcag tgggatttgt agggactat gctgcgctgt gtttgggatt tgaaataaaa 120  
 cgatgggaga tgtgccacgc tcttaaatgc cagtcttctg ctctaattctt gccaaattac 180  
 ttgttgcaat ttggaacttg gccaaaaaaaa aaaaaaaaaa ataaaaaaaa acaacaaac 240  
 aataaaaaaaaa aaaataagaa aaacaacact tgatgaaaaa aatttcatta aaaaagggc 300  
 cggttccaaa 310

<210> 8545  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-G6

<400> 8545

eggactctac taatgctatt atggctgaag cggaacttac cttaaagtct cctgctgatg 60  
 ttgacgcaga tctactgaag gatgatgatg atgctcagct actacagcaa gcactcgcta 120  
 tgtcaatgga tgaggggtgct tcaggatctg cagctgtggc tgatgctgct atggcagaag 180  
 ctgctgcaga tgaccaggat ttggcattgg ctcttcaaat gtctgtccag gacgcagagg 240  
 tggtcgttca atctgatatg agcaaagtgt ttgaggacag gtcatttgtg acatccatcc 300  
 ttaattcgct tcctggtgtt gaccccaatg acccatctgt gaaagatcta ctggcttctt 360  
 tgcattggcca aggagagcag gaggagaaga aagataagga ggacaagcca taca 414

<210> 8546  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-G8

<400> 8546

tcccgggtcg acggggcaag cgacatcgct gccatggacc gcgtgcttca tcagtaaadc 60  
 ctcatataca tcaggcgagc cattcactat gattattgca acataaccgg tggtgcggaa 120  
 acatagtcag tggtgcaaaa acatagctgc ttcaaaaaca tccctcgtgc ttcaacaaga 180  
 acggcagagc tgcaagacaa ggtaaccgct atggcgggat gtttctgaaa catggcctat 240  
 gttgcagaag tccacgagac catgagaaat aaattccgca acacaatctt tggtgcaaat 300  
 atttccgtta cagagctct gttgcaaaga tccgcaacac aatctttgtt gcaaatgttt 360  
 ccgcaacaca agctctgttg caaatgcttc tgcaacacta cctttgttga aaa 413

<210> 8547  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-H10

<400> 8547

gccgagtcga tgtcactgtc gggagcgccc tagacatatt cgggggagat ttgccctacg 60  
 acactgttgt ccattggcac aaggagcaaa acctgggttag ccaacggtga agaaatcaga 120  
 tgatcctttt atagagcatg atcaaaagtt cagagctcat gtgtgatccc cacctgacca 180

taggtcaggt tatagagctt tgttgtttgc tggacattgt agtgtgaaca ttgtgtgtgt 240  
 cttgtgtgac atgtcaaagc tgaagcggag gtgtgaactc ggtgtggtag aagaccactc 300  
 ggtattcaga tactgttctt cacattctgt ttgtattgtg gtactggtaa tgatgaataa 360  
 acag 364

<210> 8548  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-H2  
 <400> 8548

cgggatcccc gtatgaagcg gagtacatgg cagcctcgga ggcagcacat gaagcgattt 60  
 ggggtgaagga gttcatcacc gacctaggag tcatacccaa tgcgtcgggg ccgatcaaac 120  
 tcttctgtga caaactgga gctattgccc tcgcaaagga gcccaggttt cacaagaaga 180  
 ccaggcacat caagcgtcgt ttcaactcca tccgtgaaaa tgttcaagat ggagacatag 240  
 agatttgcaa agtacacacg gatctgaatg tcgcagatcc gctgactaaa cctctctcgc 300  
 gtgcaaaaca tgatcaacac cagaactcta tgggtgttcg attcatcaca atgtaactag 360  
 attagtgact ctagtgcaag tgggagactg t 391

<210> 8549  
 <211> 226  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-048-Q1-E1-H3  
 <400> 8549

tcatttgccc ttagccatgc gccgtttgca ttcactattt gacagtgagc ggtacatagg 60  
 aggggacaat ctttattttt ggttacatgc tgattacaga cagtgtactg gttctgtcga 120  
 ccgaactatg gagcatgtct ttgtcatggt caattgattt ttcttcttca ttctgctgta 180  
 ttactgacct tgatattcaa cctgaagtgg gtgggtttat tcctcc 226

<210> 8550  
 <211> 379



<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-048-Q1-E1-H4  
  
 <400> 8550  
  
 tgttcggcaa tttggtcaac ggactgtgt tcaacaaaaa aaggacatga aggcaacaaa 60  
 ccattcgatt tcaagacgga tgaggagcag gtcacaaag ggctggacac gacagtgtc 120  
 accatgaaga aaggagatgt cgcgtcagct agaataccac ctgaacatgc gttcgggtcc 180  
 actgagacga agcttgatat tgctatggtt cctcccaact ccaccgtctt ttatgaagtg 240  
 gacctcgttt ccttcgagaa ggagaaagaa tcttgggact tgaagagtaa tgctgagaac 300  
 atcgaagcag ctgctaaaaa gaaagatgaa ggaaatgcgt ggtttaagat gggcaagtac 360  
 gccaaaggctt ccaagagat 379

<210> 8551  
 <211> 266  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-H7

<400> 8551

cccgggtcga cggggagcac aagaaggacg gcgggcacca cgagggcgctc agcgagcaca 60  
 tcaaggacag gatccacagc gacggcatga tggacagcat ccacgacgag atcaacgaca 120  
 acagccacag caacggcaag aaggacggcg aggaccacga ggacaacgac agccacagca 180  
 acaacgacag caaccacgac aacgaccaca ccgactccga cccgcactcc agcagcatca 240  
 acgecagctc catcaacagc acctgc 266

<210> 8552  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-048-Q1-E1-H8

<400> 8552

tccgggtcga cggatagtag taataaaaag gctagtcaca ataatggtgt ccagcacaac 60  
 ccaccctca aataaaacta agggggtgct tggatatggt ttagtcccat gactaaaagt 120

agtgggacta aaacatgcta gcctcaccca tgcttggatc cgaataactaa aaaggctaaa 180  
 atcaagttaa tgagcattta ttatcctcca aacctccaa tccataactc gcctgtgtta 240  
 aaggagagga gttaaagac tagagagagg actaatccac attttactag ggttaccct 300  
 gactaaattt ttttagtctc aagactagtt ttagccctc ttttagtcagg ggtgcttga 360  
 actttagcct cttaaagaga ctatttttag tcagactaaa at 402

<210> 8553  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-049-Q1-E1-A1

<400> 8553  
 tacggctcta cnattccggg tccacagcca ggctccagga caccgccaat ggactccgaa 60  
 ctacttcgcg gcaggatagc ccggcccgtc cagagctcaa ttaaactc cggcgaaggc 120  
 taggacaggc cgcataccgc ggctcaaccg ctctccggca cacaacatt ttttacattt 180  
 gctttgcagg ttcacctttg caccgaccag gactggcgat atggaagcaa ctogaatgag 240  
 caagggaatc cttagatatt ccccgagtg accatccgaa tatactctgg atccacacac 300  
 agcttcttcc cccctgatct cagcagggtc cacagtcata tccctttttt tatctcatta 360  
 cctgtcctca tacgcatcaa cgtactattc aaatacaaca tatggattta tatgacgctt 420  
 atctgc 426

<210> 8554  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A10

<400> 8554  
 gacgggcaca taaacctcct tatactctcc tcaaacagc caccatacct acctattatg 60  
 gcatttcgat agccattccg agatatattg ccatgcaact ttccaccatt ccgtttatca 120  
 tcatgacaca catcattatt gtcataattg ccttgcatga tcatgtagtt gatatcgtat 180

ttgtggcaaa gccaccatgc ataaattttc atacatgtca ttcttgattc attgcccac 240  
 ccggtgcacc gccggaggca ttcacataga gtcataatattt attctagttt tgagttgtaa 300  
 ttcatgagtt gtaaataatat agaagtgtga tgatcatcat tattagagca ttttcct 358

<210> 8555  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-049-Q1-E1-A11  
 <400> 8555

gacgggaagg tcaatactga tatgcttggc cccacgcgta gtagtcttct tcaccctgca 60  
 aaaaaataaa gcacatgaaa aaggatttaa aaatgaacaa aaatatgttt gccttggttag 120  
 aaatcttaaa aaaatgaaaa acaagtggaa aggctggtag ttgccatgta aggggaacgt 180  
 gagttgccat gtgtcataat tagcagttgc catccagcag cagttgccat gttagccaac 240  
 ttgaagaatg ataaaaatgt ctaatctgtc atgaatacaa tttcaaacct aggtgtagga 300  
 tgagctcaca agccaacggt aaagatggca gttgccatta ggtacattaa agttaccatt 360  
 tggcctagat tccagttgcc atgtaaaaaa caataggagt tgccatacac 410

<210> 8556  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-049-Q1-E1-A12  
 <400> 8556

gacgggaaga gacagatttg cctaggggtt gtggcagtgg ctaagacatc tgaactctgt 60  
 ggcgccggat agaaagaatc ggtggggccg agtttgactt taggtctagg tcatatgtgt 120  
 ggaagtagtt gaggggttttg gagcatatca cgaagcactg tggagcaaga aactcattaa 180  
 gcaacacctc atccctcctt gatagtactg gcttttccta tagactcaat gtgatcttgg 240  
 atcactaaaa tgtaaaatga agagtcttga gcttgaagct tgagccaatc ccttgtcctt 300  
 agcatcttga aggagttccc acatccttta gtccatgcca ctccattgtt ggacttgtct 360  
 aaaatgtact aggtaaaagt gttagtccaa caagagatat gttgacatta 410

<210> 8557  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A3

<400> 8557

cgcgtaaaat ttgaactgta gctgcctcat agtttgctct atattttttt cagaaatcat 60  
 ttctaggtac ataagtatct atttaacaga gaaacatcaa aagttttcca agatttaacc 120  
 actagctagg aacgggtcaag cccgcccttt tgaccgcatt ttgaaaaggg cataaaaaat 180  
 tcaaaaaaat caaaaaattg gaaaaccttc gcattgtgtc attatatgtg accaagtttc 240  
 cacgaaaaat aataaatttg ttatacggaa attgttttta aaaagtgttc tcaaaaatga 300  
 gttgtcatgc gtgaggattc atggctttca agccaaatga tcaatcttat ggccacattc 360  
 atggcatagt ttgttca 377

<210> 8558  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A5

<400> 8558

cggaaggccg ggcacccgc cggccttcag gaacgccgac ggcgggtacg gcaccatcaa 60  
 aaccggctac ggctacaagt acaccaggtt ggcgacaccc aaacgggtcca agaagaagag 120  
 ctggttctcc tgcaccagct gccgattctg atgccgtagc tgcttgccgt cgttggtgag 180  
 agagatccga tacttcgccg cgccacgacc agaagcacgc actccgggag gcgacggtgg 240  
 aacttttggc gatcttggcg tttttgtccc tgctcggtcg ccgcacttgg cgtgcagagc 300  
 atcatcgaca actgatggct cccgttcata tgtacgaata atttgtggcg aataaaaggg 360  
 gggaagtgac tacaacaa 378

<210> 8559  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A6

<400> 8559

gggtcgacgg aaattgcaaa cctaacgaag ctcataatca ggtggttgaa gtgaatgtca 60  
aagtcgaaag tgcaggcaca aataatgtgc acaacaatgc tttctatgct gaagaaaaaa 120  
tactgaaatc cgagttgcaa gcaatgagag attgtgaccc ttcattctgcg cggcattgga 180  
ttgttaggaa cacaagggct gtaaatcgta ccggacaacc aactggtttc agactcgtgc 240  
ctggttcaaa ctgtttgcc tttgctctgc ccgaggcaaa gtttcttcga agagcagggg 300  
tcctaaagca caatctttgg gtgacaccat acaagagcga tgagaagttt cctggagggg 360  
agttcccaaa ccagaatcca cgtcttcacg agggtttggc t 401

<210> 8560

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A7

<400> 8560

ttgaaaatct gattggcaag attctgaagt gtctgatgcc cgggtgggcac attttcatca 60  
gggagtcctg cttccaccag tctggggatt ccatgaggaa agtgaaccgc actcactacc 120  
gggagccatg gttttacacc aaggtgttta cggaatgcc ctcctatgat caggatggga 180  
attcctttga gctttctctg gtaacttcca attgcattgc atcttatgtg tagagctata 240  
tgaacttgcc cagatatgtt ggctatggca caaggtcaag tgctacgaag acaaaggctt 300  
tcagatattc ctgtacaatg tgcattacaa atctcctgga atc 343

<210> 8561

<211> 350

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A8

<400> 8561

gagcacatga tcgccagctg catcaggttg gcatgtttga catgatcatc gacaacatca 60  
gtggggctcgt ggcagccata agcacaggaa tgaccatgtt cacattaagg ccgatgagca 120

cagcatagaa cgatggtgag cactatatgg tcggcgagca catggatggc atgttgagaga 180  
 ttatcttcgt taagatcagc ggccattgcc actgtgaccg catgaacgac tgtgaccaca 240  
 aggatattaa tgtctataac accaataacg tcaacattca ggcgagggcc atttgagcga 300  
 ttacggccac ggcatcatca gcatctacag cgacatcgac tgagccatct 350

<210> 8562

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-A9

<400> 8562

gtcattggtg tcgggggtga aaatgaagtt catcatgtga gagaaagtcg ggtgagcgtt 60  
 gactaggcca agtgacatga cagtgtattc ttatgtaaca tatcttgtcc tgaaatgccg 120  
 tcttggaat atcttgctca cggattcgaa tctgatgata acccatacgg tgatcaagct 180  
 tggngaatac ttgggcacct ttgagttggt caaacagctc attgatgttg ggaagtgggt 240  
 atttgctctt tatattcttc ttgttcattg gacggtagtc aacacaaagc cggtcattc 300  
 catcttctt cttcacaaac agaatttcac aaccccatgg agaagagcta aggcggatga 360  
 aattcattct tt 372

<210> 8563

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-B11

<400> 8563

ccgggcccgc ggcaaggaga agtacgcctt caacggcgtg tcccacaccg accccgagac 60  
 gccgtcaag ctgcccgagt acttcaacgc caccaaggga gtgttcgagt acaacctcgt 120  
 caccgacacg ccgcccgaagg agggcacgcc catcaaggtc gccccagcg tcatcaccac 180  
 cgagcaccgc acctacattg agattgtctt cgagaacccc gagaagagca tcgacacctt 240  
 ccacctcgac ggctacgcct tcttcgccgc cggcatggga ccggggctat ggtcggtgga 300  
 gagcaggaag acatacaacc tcctggacac ggtgagccgg cacaccatcc aggtgtaccc 360

gaggtcgtgg acggcgggtga tgctgacgtt cgacaacgcc gggatg

406

<210> 8564

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-B2

<400> 8564

gtccatagtt gattttttaca atgctctttt gcttcactaa tatttgtag agcgtgggca 60

tatcttttgt aaaaagaatt aaactatctt gcttcactta tatctattca gagagatgac 120

aggatttggg cattcacatg gttagtcata aaatcctaca taaaacttgt aaatcgctga 180

atatgatatg tttgattccc tgcaacagtt ttgcgatata aagatgggtga tattagagtc 240

gtgctactgg ttagttgtgc gttgtagaaa tacttgtgtt gaagtttgtg attccccgtag 300

catgcacgta cgggtgaaccg ttatgtaacg aatttggagc atgaggtatt tgttgatttt 360

cttccttagg agtggcgggtt gg 382

<210> 8565

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-B3

<400> 8565

cccctgaaag agagagatca ccgggttata tctggcactt ggaaggggtgt gttttattaa 60

gtatccagtt ctagttgtca taaggtaag gtacaactcc gggtcaccc tttaccgagg 120

gacacgacta ttcgaataga taaacttccc tgcaggggtg caccacataa cccaacacgg 180

tcgatcccat ttggccggac acacttttct gagtcatgcc cggcctcgta agatcaacgc 240

gtcgcagccc caccaaattt ccgccgaagc agaaaaagca tcgtctcgtc tcgtctcgtc 300

gaggaatcaa cagccatggg cggcggcaac gcgcagaagt ccaagatggc gagggagagg 360

aacctcgaga agctgaaggg cggcaaggg 389

<210> 8566

<211> 400

<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-049-Q1-E1-B4

<400>      8566

ccgggtcgac gggatgcagg aattcctcgt cgaattccgc gggcccgaag agagtctcta    60  
ccaaggaggt gtatggaagg ttcgagtaga actgcccgat gcgtatcctt acaggctctcc   120  
gtcgattggt ttcgttaata agatataatca cccgaatgtc gatgaactgt ctggttccgt   180  
ctgcttggat gtcattaacc agacatggag cccaatgttt gatcttgtca atgtgtttga   240  
agtcttcctt ccgcaacttt tgttatatcc aaatccctct gatccattga atggagaagc   300  
tgctgcactc ttgatgcgtg atcgccctgc ttatgagcaa aaagtgaaag aattctgcga   360  
gaaatatgcc aagccagagg atgcgggtat aaccccagaa                               400

<210>      8567

<211>      372

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-049-Q1-E1-B5

<400>      8567

cggaatcca caacgtgtcc acggagccgg cggcgcaaca ggaggtggag ctgccggagg    60  
gcaccacccc ggcggtggcc atgctgacgg tgagcacgct gccgatgctg gcggagctgc   120  
ataagatgga gcatgagatc agctcgccca ccccgcgcaa gggctacatc aaggctttct   180  
gatccgatcg agatgaccga tgcacgcacg ggcgcatgca ttcaggagat gaatcaatcg   240  
ctaatgattg gcaaaccgac cgccagcaga gatacgttta tatagttctt aatttcagtc   300  
gttcgtttgt aatggtctgt actagtagca cagtcgtgtg tgttgttgtc atccatgggt   360  
ctgatatacc gg     372

<210>      8568

<211>      367

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-049-Q1-E1-B6

<400>      8568



ccatgagtga tttttacaat gctcttttgc ttcactaata tttgttacag cgtgggcata 60  
tcttttggtta aaagaattaa actatcttgc ttcacttata tctattcaga gagatgacag 120  
gatttgggtca ttcacatggt tagtcataaa atcctacata aaacttgtaa atcgctgaat 180  
atgatatggt tgattccctg caacagtttt gcgatataaa gatgggtgata ttaaagtcgt 240  
gccaatgggt agatgtgctg tgtagaaata attgtgttga agtatgtgat tcccgtagca 300  
tgcacgtttg gtgaaccgtt atgtagtgaa gttggagcat taaggagttg ttgattttct 360  
tccttat 367

<210> 8569  
<211> 378  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-B7

<400> 8569

cggaattaga agttgtaaat atgcattggt gtatcgcgac ctgaatgaat gaaataaacg 60  
aaataacgct cttgtacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaggggccccc caaaaagatt aaaactaaat tacccttaaa tgcaaattaa 240  
aaacccttca aaagggttaac caaaattaaa ttaaaggggc ttctttttaa aaattcgtaa 300  
cgggaaaaac cctgggttaa ccaaattaaa ccccttgaa aaaaaacccc ctttcccaaa 360  
gtgggttaaa accaaaaa 378

<210> 8570  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-B8

<400> 8570

cgggggctaa taaaagaagt aggaggtgtg gagacagact taggaaccga aaggttttag 60  
gcttagtaga attaaaactg agtttgtgag gtgtgggttc agtactacta gccacaagga 120  
ggaggttagc cttgatgggc aggtgatacc tcagaaggac aattttcgat attaggggtc 180

aatgctgcag gatgatggtg atatcgatga agatgtgagc catcgaatca aagctggatg 240  
gaagaaatgc cgccaagctt cctctgtgac aatagtacca caaaagctaa cattgcaggt 300  
tctataggac agcgattcga cctgcgatgt tgtatgaagc agaatgttgc caaataaaaag 360  
gcaacatgtc caacagttag gtgtagcaca gatgcgc 397

<210> 8571

<211> 375

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-049-Q1-E1-B9

<400> 8571

agaggttaca cggaaggatg acgacagtaa ttaacatgtg tacatatatc aaaaccatgg 60  
aagcatcaca ttaactatctt cagctacggg cttaatcaat atatatttac ctgaccggac 120  
tcggttcggg caatggagca gtctgcacgg tcaccatctt gtacctccat tgtgtcacct 180  
gagcactcgg caggggtctcc ttcttgtacc tccactgtgt caccgaacc atcatgaaaa 240  
tagtcctctt cttgtaccag cattattggc ccgaanccat tattagcata gccctcttct 300  
tcagccagtc cttccagctg actatcactg tcgatgacaa atgacgcaac ttcatcactt 360  
ccatttgcca ttatg 375

<210> 8572

<211> 399

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-049-Q1-E1-C1

<400> 8572

tcgacgggac agaggcagag cttgaagggtg gttcatagca cgggtgtccc ctcccttgct 60  
ctgcgttttc gttgtggtga agatggcgat atcgatggag cgcaggaaga tgaagcccgt 120  
ccttgctctc gtgctgctgc tgtcgtgcca tcttcttctt ccgctggtct cctccgtgcc 180  
tgtgtcgagt aagtgtttga cctccaacc catgcacgca tgcattggacc ttactttaat 240  
acagttcatc ttctttcttg ggatgtgtat gtgcatgcat gcatcttaat tttgagcctt 300

gctctcggat gtangaagcg tggccttggg aaatcatcta gcctcagctt ctagtctaac 360  
tctggaggcg ggcctgttc aggtcaatct ctcaacteta 399

<210> 8573  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-049-Q1-E1-C11  
  
<400> 8573

ccgggccgac gggactcaag atgtttcgag aatccaaatc cgacgtactt attctgtatt 60  
tgatgaaatg acaggataat tatggggtag tttttgactg cgttgacatt tacaagcagc 120  
ccgcattcga tcaccctctc ctgaagaacc acatactaca ggtcaccatt ctatactttc 180  
tatctttact gtcaaaaaat tgtaggaatt tttgttgctt tttgaaacat ggtacgaatt 240  
cttgatgtaa tcagtttttt tagtcatcga tgtcagattt acagatctat ccgcccttgt 300  
attagactct gacgtgtcct tgtagtattc ccgagcactg tggttgatac ggcacatacc 360  
atagcaaatg gctctcga aaacaacggc actatagtct tatttcccac t 411

<210> 8574  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-049-Q1-E1-C12  
  
<400> 8574

ttcccggttc gacctccgcy gacacggtgc agcgcgatgat ggcggagatc gacaccgacg 60  
gtgacggctt catcgacttc agcgagttca tctccttctg caacgccaac cccgggctca 120  
tgaaggacgt cgccaaggte ttctgaatca gttcatttca cctcagccgt ccgatccagg 180  
agccgatcca tctacgtacg gtttcgcata tcaatttcat gcaactacct actccggtcc 240  
cgatccagcc tcagcttcac ctgaggccgg ccctaatttt gtttgatcat ttttttttgc 300  
taccagtagt aactagtgat gatcactgtt ccatcattta tttattttat atcatcacia 360  
gtttcttttc tttctctacc tttttgtcga tcgtcggctc cagctcgatc caacgatcca 420  
tgctg 425

<210> 8575  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-C3

<400> 8575

cggggctttg agagggtttg agaggggttt tgaggggttt tgagagggtt tgactgatta 60  
 gggttgagca taactaattc aaaaaaatc aaaaaatat aaaacttggt cacatagtct 120  
 tattatgtcg tatagtaacg agaaaaaaaa tataaatatg gtttacatac atttttacga 180  
 aaaatccttc aaaaaattgt tattcctcaa acaatgtagt atggagttga agggagagag 240  
 tagtgggcac ccgagagtag gtggagtttt aaaaatgaaa agtgtgaaaa ctcaccaaaa 300  
 acttcatttt ggattgacta agaaagatct gaacttactt ttctcatttt catgttttaa 360  
 acttgtttta tatataattt tctattaaac cttgt 395

<210> 8576  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-C4

<400> 8576

acggggaccc acaatcatcc ttactctaca caccttttga gagaatccta cattattaga 60  
 atttgctaga atatgctatg tgcttcactt atatcttttg agcttgatag tttttgctct 120  
 agtgcttcac ttatatcttt tagagcacgg tggtgactta tttttgtaga aattgctagt 180  
 ctctcatgct tcaacttatat atttttgaga gtctttttaga acagcatggt atttgctttg 240  
 gttataaaaat tggccctaga atggtaggca tccaagttgg gtataataaa aactatcata 300  
 ggaagtgaat tggatgctct ggtcaatttg atacttaata attgttttga gatatggagg 360  
 tagtgatttt aaagtcatgc tagttgggtg attatga 397

<210> 8577  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-C5

<400> 8577

cgggtcgacg gggatctaaa cagtactatt cttctgctta tgtaaacacc ttggtgtaca 60  
accatgtcag taagaccctg ttgctttttt tgatagcatt ccagtaacca ccgatggacg 120  
agaactttgc ctattgggtcc gtctcgttca atgagcagga aaatgggttct cttcgtccct 180  
cgcccttggg accaatgggt gttgccaaca taatcgatag tctatcctct ggcatgcctt 240  
gcttacatga tcatgcaaga cgatcatccc cttccgactt ttaaccaca tgggtgggcc 300  
ataaccaca atttcacagg atcgaaacct gactctcctg tacaccctgt tgtcaaagtt 360  
attcccacgt ttgactttga cgtaattcac gggcca 396

<210> 8578

<211> 389

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-049-Q1-E1-D1

<400> 8578

cgggacaggg ctagaatacc tgcagcacga gaatttcatt gaatgagcag tcagttagtc 60  
aaggcaatgc cgagtcttat ttttcaaaa gtccaggaag acaattgtac ttcgtcaaca 120  
tgtgccattt gcttggaaga ctacagtgtt ggtgaaaaga taagggtgct gccttgctgt 180  
cacaagttcc atgctgcttg cgtggacctg tggctcacat catggaggac attctgcctt 240  
gtatgcaagc gagatgcaaa tgctggaatg tcaaatttcc ctccatcaga gtctaccctt 300  
ttgctttctt ctgctattcc cttgccagct gaatcgacag ctttgtcttc ttttcgttca 360  
ttggtancag catctcctcc aaggacaat 389

<210> 8579

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-D10

<400> 8579

acgggaatgt tgatgaggct tgcactgggt tgaatgttgc gggtatgggt ggtggattcc 60

ccaggaagga aggaatggaa aggaaggatg ttatgacgaa aaatgtttca atctacaaag 120  
ctcaagcatc tgctcttgaa gctcatgcag cccccaattg caagggtttg gttgttgcca 180  
accagcaaa caccaatgct ctcatcctga aagagtttgc tccatctatc cctgagaaga 240  
acatcagttg tttgacccgc ctagaccaca acagggcact cggtcagatt tctgagaaac 300  
ttggtgtcca agtttctgac gttaaaaatg ctattatctg gggtaaacac tcctcc 356

<210> 8580

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-D12

<400> 8580

cccgggtcga cggggacgat gacttctgtc agcacgacga cgtgatgacg gttttggtga 60  
tgtgaacgcc atcgccaaaa atgagccatg ggtacatgct aaacacgtca cataatgtgt 120  
cttcataact gatccgatca atcacagccg tgttgtcgtg aggagaagca aaaggagcat 180  
tgccgaaatg gatggagtcg ccaacgagga agaccacgac cagtacggtg atccgatgag 240  
ggaagatgat gctgatgacg atgaaacata cgtcaaaaga agaacaaaga ttacattacc 300  
tacgaaagat cgtaatccct ggagaaggaa aactcacgac catggggtca attattcgac 360  
aatgaacaaa agagggaaga atattagtct aaagcgtcat cgtcgcccaa gctgacaaac 420  
taatc 425

<210> 8581

<211> 311

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-D2

<400> 8581

gcagagtaaa gtcagggggc ggcccgaat agaaaaacc cggggttgcc ccaatcaatt 60  
cggttggaagaa agaattggcg agttgccaat agccggttgc aaaaaaaaaa gttcaaagg 120  
ggctggcctt tgaaaaaaaaa ttaacgggtg agaagggcgg tttgccgaaa attcgggtgg 180  
aaaaaacaag acaaaacaaa tgtgtgtccg agctggcaaa agtgtgtctc gtacgcgtgt 240

ggtgcgcttg aaggattgca aagagcgaga gtgttgtctc aggctgtgcg tgcacacgcg 300  
tgtggagaac a 311

<210> 8582  
<211> 373  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-D4

<400> 8582

cggcagtacc acaaagagct accagcgcca gacgtggggc cgcgtgctga acgtgctccg 60  
cgacgacggc gggatcacgg tgaaggggca cgtgcagaag ccggtgctca aggaacgggt 120  
caagcagttc aacgcggcca tacacgagat ccagcggacg cagggcgcggt ggggtggtgag 180  
cgacgagcag ctgcagtcgg agctccgggt atccatcacc gccgtcgtgg tgccggcgta 240  
ccggtccatc ctcgcccgct tcgctcagca cttcaccgcg gggaggcaga cggagaagta 300  
catcaagttg agcgcatacg acctcgaggg catcatcgag gagctcttcg agggcagcgc 360  
cgggtccaag tca 373

<210> 8583  
<211> 315  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-E11

<400> 8583

acgggaagtg taagagagga gatggctact atccgaggtc ccaggaccag ccatgacgtc 60  
aagctgctgc agcgtggagt caggagtgtg ttgcaccccc ggcgtgtccc agtatgtgct 120  
ttggaagact ggcgtcaatc tcaacagacc cttatgcgtc cacattattt gcttcacaaa 180  
cagatagcat ctctctgctt cgtctctgga gtcacaaagc tcgatgacag ctagatacgg 240  
atgatttaca ggtttggagc caaaatataa ttggctagtc tttttgaaca catgatgtaa 300  
cacaaaagtt attat 315

<210> 8584  
<211> 409

<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-049-Q1-E1-E3  
 <400> 8584  
 attcctaagt cgacgggccc aatgaaatgc cttaatctac ttgcttgag aataataatg 60  
 aatctatgga tgtgaatttt gttggttagga atagtttttg aaacaacact tatagaggga 120  
 attttaatcc taggccttat cctagtaatc cttctaataa ttatggaaat tcctacaata 180  
 actcttatgg aaattttaat aagatgccct ctgaatttga gagtagtggt aaagagttta 240  
 tgaattcaca aaagaatttt aatgctttgc ttgaagagaa attgcttaaa gttgatgatt 300  
 tgtctaggaa cgttgataga atttctcttg aaattgattc tttaaaactt aaatctattc 360  
 ctcctaagca tgatatcaat gagtctctca aagccatgag aatttccat 409

<210> 8585  
 <211> 409  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-049-Q1-E1-E4  
 <400> 8585  
 ttccagggtcg acgggacgag gaggaggagg aagacgccta ggtctgcctg ccgcctcgta 60  
 gtttaggttg tttttatttt tcttaaatgc taatgtggat gcgtggactc tcgccggcct 120  
 tcgtggccgg ctgtaatgtt taattaatga tgttttttaa gtatgcatgt gttctatttt 180  
 tttctagagc cgtcaaaatg gataggccta gcgttgagcg cacgtgccga cccaaacacg 240  
 gaagcggaca tccgtgtccg cctattcgat ccaaacggac gaaaagcggg caaaatcgct 300  
 gtccatttga gtcgatccgt tggagttgct ctaagggcct attcggtttc tctcggctcc 360  
 tgcgactcaa ctcccgaagc ggagcaagct acttcagctt ttttatgga 409

<210> 8586  
 <211> 368  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB104-049-Q1-E1-F1  
 <400> 8586



tcgagggggg gaggcgcctt agcgggggatg gaagcttggg cgagattatg tgcggaaaaa 60  
gatggagaag cgaatatgtg ctgcgggaag tggataggtg atgatgacta cagcatgccg 120  
cttgacttac gagacacata ccaacaacgt agtgtcatat cgatgctaga caacttgctt 180  
gagtgatcac agtactggta ctccctacag tacctactac agtactatgc cctagcttgc 240  
tagagtagag tagtagagta ggactctgct ctactactag caccggagga gtagtatatt 300  
ctaatactaaa atagttacaa acttcaatgc ccgatcgtgg aacgactacg aaccatgctc 360  
aaagaccg 368

<210> 8587  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-049-Q1-E1-F12  
<400> 8587

ccgggtcgac gggaggcagg atggatctgc gcacggaagc ttccgatctg accggctggc 60  
gtctcagatc tgctgctggt ctgatgctaa acggcggatc tagatgttcc cggcggcttc 120  
ggatatgttg agcggcgggc ccggaggggc tctctccggc gagtacgtgg gatccccgtc 180  
gctcctccac ctctgctgac gacggccgac ggctctttgt gttgataatt attcgatgct 240  
atgtcgataa ttattagatc taagagatcg gaggtgacgt aaggtaagaa gatgtagcaa 300  
gcgagggtgct tgtggagagg tcggaggaga gtgaaaaaaaa agagatgtga acatctagag 360  
gcctttgcc a tgttgggtgc gctcgcatgg caggccgcca ccataataaa gatgtttttt 420  
tgt 423

<210> 8588  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-049-Q1-E1-F3  
<400> 8588

cctaaagtga gtaatatgac acatacaatt cgtccagttg cttctcgtgg gttttcataa 60  
ccctgctgcg caaaaatggg atatgcattt gagataaatg tccgagttag tacgagagtc 120

ggtgatcgat acagaggctg atcgagttag ctgttccttt acccaagaaa aagtatttcg 180  
 attttccatg tccaatcgca gatcccagaa tttctacaag aaattagata ggtagctaag 240  
 ctaatctagt tccctataca gcaatcgggt gtcattctac tgcaacagtt gtactgcaat 300  
 gatgaatacc ttaaagtagg tataaataga aagaattttg gcaaaatgga aaaggggttt 360  
 ctttcgaaaa gaagatgctt g 381

<210> 8589

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-F4

<400> 8589

gtcgacgggc cggccttggc ggaggagcgg gagcagcttg ctgaggagcg gaaggccttc 60  
 ctccctcgaga aagctgaggc tgaagagcag cagcggctca ccggtgagaa gctgtacgcg 120  
 cgagaaggcg agctgactca gcggaagtg aacctcgaca gccacgaaga ggagcttgcc 180  
 gcgcgcgaac gggcacttgg cgggacgctc caagaggcaa aggatgcggc tgcggctgcc 240  
 gaggccgcca agaaagaatt ggaggcaaag gtggcgcatc tagaagctaa tctgaaggtt 300  
 ggtggcgaag agcttgccgc gctcaagcta gagcgcgaga aggacgccct tgcccatggt 360  
 gagctgcagg gccgactcgc cg 382

<210> 8590

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-F7

<400> 8590

cgggtcgacg ggatatccga aagagaagga agtgcagaat agatgtgtga atctgaacat 60  
 aaaagaagag ttagtatgta gttcgagcac atcaaataca acaggtttct caagctctac 120  
 atttagtgct ttacgaaaga ttgacaagga caagatggcc atggcgttgg ggtccctgca 180  
 gacaagtaat ccaactatct caagtttcca gtgcacacag tccttgagtc attcatctga 240  
 attatcatgc ccttctcgaa tatcaacagg atctagccta ccttccaaaa ctactagga 300

actgtttggc attgagactg aatactgtgt ggccaaggct tcatgtgcc aggttagtca 360  
actggggaaa ccttcttcaa gtcaatccaa tgaagtctc 399

<210> 8591  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-049-Q1-E1-G1  
  
<400> 8591

acgcctgtcg gtacggctcc taaattcnca ggtcgacgat gtaaggcaca cgtaccggcg 60  
ggggttccga gctgcttggc ggcgtagtag tacggtgggt tgtaaggctc cggccacgac 120  
gccgtctgta ctgtgtgcg gcccgctctgg tgggtgtccgc gatggtcgtg ccgaccgcct 180  
caaccgccat gacctccaag cccaacgcca acaacctaac caacgaagaa caacccttc 240  
ttggacttcc cctcctttgg cggcctcgct ttgacgcgcg aatttttcgc gtcgtcgagc 300  
tgatcttccc gggcaagcgt gatgctcaga tctccggca cctccgtcgg ctccatctcc 360  
gacacgttct ccgacggttc catgcgtcgg cgacggaagg aaggcgagag tgaaagaaaa 420  
gagcgggaat 430

<210> 8592  
<211> 361  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-049-Q1-E1-G11  
  
<400> 8592

ccgggtcgac ggggaatctg aggcagagct gtgaggaaag atgatcttat cttgccacgg 60  
cggatatctt gcctctttga cgtgcagttc tagcgcagca gaaggtttgg acagatacat 120  
ggttctgttt ctgctccggc agccaaagca aaaccacaga tacggtcctt gtacatctct 180  
aataatttga cctgaaataa ttacgatac tgcatctgta gtttctccac atattgtgcg 240  
agtaatgaca tttgtatact taaataagtg atggcatttc atccgtcaaa aaaaaacaaa 300  
aagataaaaa cataaataaa catacaaaaa aaatcaaaac tcttccaaaa tgaaagataa 360

<210> 8593  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G12

<400> 8593

cgggccgacg gagtcgtgaa ttgcctgagc cgctccgagc accaaccttc tggctctcga 60  
 gttgaggtaa gcacgtgcac actgagaaaa cagctcgtgg acttcgtcga aggcaccgag 120  
 ggtggtctca agagaacacc acgaactgtc gtttaaagca gccaaccgct tcgcggcatt 180  
 ggtgtgtgag acgttgatac gtctccaacg tatctacttt tccaaacact tttgcccttg 240  
 ttttggactc taacttgcac gatttgaatg aaactaacc ggactgacgc tgtttttagc 300  
 agaactgcca tgatgttggt ttatgtgtag aaaagaaaag ttctcggaat gtccctggaaa 360  
 tccacggagg cacttttttg aattaataag aatttttggc gaaagaatca agaccagggg 420

<210> 8594  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G8

<400> 8594

attccagagg tcgacggggt ctcggcagaa cactcctttg aacacggaca gttacacttg 60  
 agcaaatacat ctgcaacata ccatcgacca tatgatggct ctgcattttc tgactgaggt 120  
 cttcgatata tgcaagcata gaaccattga tcagtaactt catgcctagt catcagtggg 180  
 aaattcatgt ctgcaatacc tccacacaat cgctgagtat cattcatcac agcatactca 240  
 ggtatcacta catcagagtt gaaacataac tctgtccaat atcatcggtt ctaccgaatc 300  
 attg 304

<210> 8595  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-G9

<400> 8595

ttccccggggcc gacgggaaaag gaaaatgaga ggcgaatggc aaataatgta atgcgatgga 60  
gaagagtttta tgatgggtac gtggtatgtc ttgacttggc gtagatctcc ccggcaacgg 120  
cgccagaaat ccttcttgct gtctcttgag catacgttgg ttttcccttg aagaggaaaag 180  
gttgatgcag caaagcagca taagtatttc cctcagtttt gagaaccaag gtatcaatcc 240  
agtaggagac aatgcacaag tcacctagta cctgcacaag caatcaagaa ccttgcaacc 300  
aacgcgataa aggggttgtc aatcccttca tggctactcg caaaagtgag atctaataaa 360  
gatagtaaag taaatatattt ttggtatttt tgtagtatag attggaaagt aaagattgca 420  
aaatag 426

<210> 8596

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-H1

<400> 8596

cggggaccgt cgagtattat attagtattt gcttttttagt ttaccacaat catccttgct 60  
gtacacacct tttgggagaa gcctatttga ttagaatttg ctagaatact ctatgtgctt 120  
cacttgatc ttttgagctt gatagttttt gctctagtgc ttcacttata tcttttagag 180  
cacggtggtg tcttaatttt gaagaaattt ctagtctctc aagccttcac ttaaaatctt 240  
tttgagagtg tttttagaaca gcatggtatt tgctatggtt atacaattgg tcctagaatg 300  
gtaggcatcc aagttgggta taataaaaac tatcatagga agtgaattgg atgctatgat 360  
caatttgata cttgataatt gttttttacat acgga 395

<210> 8597

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-049-Q1-E1-H10

<400> 8597

cgggtcgacg aaaacccta cttgccagag caaccaggca agccccctt ttgatcatcc 60  
 cgatatcgcc cattccattc tctcatgctt gcattagatt ttgctattgt tattgtttgc 120  
 tcctattctg atgcatagcc tacttttgta tctgctgttg taccttacct gcttatcctt 180  
 aactgcttag tatagggttg ttagtgatcc accagtgacc cccaccttgt cccagttgcc 240  
 ccgctttatg ttcgaagacc cgatcaacgg gatcgaagac caggccccgg caacgcacat 300  
 cactctcccc ttagttgctc gacactactg ggtaactacc gagtgccgag ggtgagacct 360  
 ctacaacact tctgatgtta accctgtagt gtagctattc ggtcgtgggc atcgaggggtg 420  
 a 421

<210> 8598  
 <211> 162  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-049-Q1-E1-H4  
 <400> 8598

ttatgtttgg tggttccttt atgcagactg tgatcctgtt gtgggttacc gtgaggaccg 60  
 actggaacat agacgtggcc gtcgcgatga caatattgat caagtgggaa tgcaccacta 120  
 tgcctctatt agcaggccaa gaatgaatca gtggatcctg tg 162

<210> 8599  
 <211> 289  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-049-Q1-E1-H6  
 <400> 8599

gacaaagtgc acgtggacta gtcggataaa aagctcttat atgatcagca gatctacaag 60  
 atcaacactt aactacacat tcatattaga tatgaggctg tctgcattat cccatagatt 120  
 ccattaagct cacgggtgcta tagagaataa tctgaggctg aacggataca taattcatct 180  
 tgagtctgat gacaggggac tgcactacac accactagca tcataactat gatgtggaac 240  
 agtatcctga ttaaactatt ttctggatta tgaatgaatt ctggaacat 289

<210> 8600

<211> 388  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-049-Q1-E1-H8  
  
 <400> 8600  
  
 attccgtatc gacggggaac aacgacaaga aaggattcta tcaatgtatc atcagtatca 60  
 atcactacat gacaccacac aacagatatg ctgctgtcaa cagtcctctc caaaattaac 120  
 acggcattta ccgtataatt acaccattgc tgctgtcagc attgctctct aaatagacac 180  
 tgcaattatc atgtacatca ttgctgctgc aatgaaccat taagaattat ttaaaatcta 240  
 gcctaccatc tgcgttgctg tcaacagagg gttgaggcgg agttacaaaa tctgtatgag 300  
 aaaccgaggg attgtccgag tcagcgacat ctttgttatc ttcagagttg tcagaagcag 360  
 ctgagatggc gtcacctgat tctgaatg 388

<210> 8601  
 <211> 409  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-049-Q1-E1-H9  
  
 <400> 8601  
  
 cccggggccga cgggggggta aaagcatgtg gcgtcttatt taaccttggg ctcaactatg 60  
 cgtccgcgac atcatcgctg gcgttgtaaca atgttcaacc cgtgggttacc ttcattcttg 120  
 cggtcataat tgggatggag tctatgaagc tgaagaagct ccatggcaac ctaaaagtgg 180  
 caggcattct ctgctgcgtc gccggcgctc cgggtgctggc cttctacgag gggccaatgt 240  
 tcagatcttt caaccatcac cggctcttcc agcaaggcag cagcagcagc tcctccggag 300  
 caggcaccta ctccaagaac cagtgggtat ttgggatttt cctcatgaca ctctccaaca 360  
 ttttagcagg cttgtggacc gtgcttcagg ggccactgat agaggacac 409

<210> 8602  
 <211> 391  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-050-Q1-E1-A1

<400> 8602

gggccccgag aagcatgcg ctaggacttt gtttcgatga ctaatagatt tctgcaataa 60  
gtatgtgagt tctgtatgac taatgttggg tccatggatt atacgcactc tcacccttcg 120  
accattggta acctctctag tgcccgaac tttcgccgt agcttaaacc caccatatac 180  
tttctcatc acagccacca tacctaccta ttatgacatt tgcatagcca ttccaacata 240  
tattaccatg caactttcca ccgttctgtt ttattatgac acgcttcaac attgtcatat 300  
tgcttgcat gatcatgtac ttgacaccgt acttgtggca aagccaccgt tcataattcc 360  
ttcatacatg tcaactcatga ttcattgcac a 391

<210> 8603

<211> 356

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-A10

<400> 8603

tcccgggccc acggggacca caaggagaag aaggacaaga agaagaagaa ggacaagaag 60  
cacggcgagg gccacaagga cgacgacggc cacggcagca gcagcagcga cagcgacagc 120  
gactgagcca gctccggccc cgctccggca gcagcgtgca gtgtaggcga gatcgatgaa 180  
cgcttggggag aagtgtggca tacatatatg ttgcagggtt tggagcgtgt ggtagcatat 240  
gtatgtaatg cgtgacatgt ctcatggatc ttgtgatgta taataattag ccggctgcac 300  
tgactgcac ggtgcttgta ataataacgt taatgaatca tgttggtatt gatgtt 356

<210> 8604

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-A11

<400> 8604

acgagatgtg gaggaacga gacgtatggc acctagtgtt cactcgactt tatgtgagaa 60  
tgagttgaga gaccgtaat tgctacgttt ccgaattgag aagcatccac tcgtctagta 120  
atacccttat ggaccagtgc ataccactgt ggcatttcgt attcatcata agcagtccaa 180



acctggtttt caataaacia agcttaagtc cgatccgtgt cgaagtcgta aaaatcagca 240  
tatggaacac tcataaccac ctattatat tcatcctcat taaccatata actagtgttc 300  
ttgttttcat aaatctttac tctttttact gcattacata tctttaagtt ttgaattgtt 360  
tttgtaacc agcagcacca actttc 386

<210> 8605  
<211> 269  
<212> DNA  
<213> *Triticum aestivum*  
<223> Clone ID: LIB104-050-Q1-E1-A3  
<400> 8605

cctccgggtc gacggactgt gtcatataac aatgggctaa gtcacccggc cctgcccgcc 60  
cgtcttcttc ctgtccgac gatcccaagc ctgcacgggtg tcaactttcg ttagctttct 120  
cgtgtctgtt attaaataat acgatcgaat cgtggcctct ttggcatgta cgtactatat 180  
gatctatttt cagttatcga cttgctaattg ccggatgaat tgttctatct gcactctgca 240  
cttgggatta acctgtctt atgtttctc 269

<210> 8606  
<211> 396  
<212> DNA  
<213> *Triticum aestivum*  
<223> Clone ID: LIB104-050-Q1-E1-A5  
<400> 8606

tgtgtcatat aacaattgta ctaaataatag taaagaaatc ttaagatttc gattcccagt 60  
aaaaaaaaat atagaataga aaaatatggg aaaaaaaata aatccactcg gtttcagact 120  
tggtacaacc caaaaacacc attccttttg gttcgcacaa caaaaaatt attcgaagg 180  
tctacaggaa gataaaaaaa taagggtattg tatcaagaac tatatacaaa agaataaggaa 240  
aaagggtctg aatagaaaaa tagaatcaga ctcaagttcc gaagtaatta cacataatag 300  
aaaaatggac tcaggttcaa gttccgaagt aattacacat atagaaatcc aaaaagaaat 360  
cgatacgatc cacgtcaaaa tccatattgg attccc 396

<210> 8607

<211> 403  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-A6  
  
 <400> 8607

```

ccgggtcgac ataactaaaa atccaggtgg ttaaaccaaa atcacacaga aaaagggagt   60
accttgctct gataccaatt gaaagtgcgt tatatcgact agacgggggtg aataggtgac  120
ttttatgaat tcttcactga ggaatttcag ggtgaggaaa ttcctaactg aagaactact  180
tgcagcggaa taagtactca gaatctatca taacagagca taagcatggt catcatgatg  240
aatgaaaaa caagcacaga gtacagaaag tgtaaacaca ggatacacag gatgaagaca  300
aacagactga agaaaatgaa ctgaggaaat tgagaaagtc ttcagtcaaa gtcttcaaac  360
aatatgaac aagcacacag tacagtaatg aggaaatgga aga                        403
  
```

<210> 8608  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-A7  
  
 <400> 8608

```

gataacttag catattagag ccaacttagg taaaatggag ccaacctagc taattatgcc   60
atctttgagt gaactaagca tattagagct aacttatagc taacttatgt cattttggaa  120
gaagaagaag aagaagaaga agactataag cttattatgt aaacttggtc attttgtgct  180
aacataagta attttggagc taacctatag gaaactaaac atagtagaga taacttagca  240
tattagagct aacataggta actaagcata ttagagctaa ctatatatag atcattttgg  300
agatctgaca tacctgacat tgttcagttc tcattgttct tctccttctc cttcctcagc  360
ctgatgcgcc aag                        373
  
```

<210> 8609  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-A8

<400> 8609

acggactaag caatttagat ataacttagt atattacagc caacttaggt aaaatggagc 60  
gagcctaact aattatgccca tctttgagtg aactaggcat attagagcta acttatagct 120  
gacttaggtc attttggttag aagatgagga tgaagaagaa tactataagc ttagtatgta 180  
aacttggtca ttttgtgcta acataagtag ttttggggct gacctatagg atactagcca 240  
taggtacaga taacttagca tattagagct aacataggta acgaagcata ttagagctag 300  
gtagatatag atcatttttg ggatcggaca tacctgacat tgttcagttc tcattgtgtc 360  
ttctccatct ccttcctcag cctgatgcgc caatagcg 398

<210> 8610

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-A9

<400> 8610

ttagacattt taactatcta attatagtgt atataatctt taaataacta attaatttaa 60  
cacaaaatat aaaaataaaa gatcaaaact cagaaactag cctattgaaa gtgtcttgac 120  
caaacttgag ttcaaagggtg tcaattctat ttaaagctaa gaaaaacgta tgcatttca 180  
atattcagta tccatcaaat tttggtctta atgatgcgtg gttttgagtg gaaagtttaa 240  
gatggactac tgttttgttt agtattattc ttacattcat ggattgtaag aaaactttaa 300  
tatctttttg ctctcacag ggataaaaaa gataaagaaa atttatctag aagaagggtga 360  
atgagaagggt gaata 375

<210> 8611

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B1

<400> 8611

gggacaaaac aattcaccat ggtactgctt gatgagatag agaaagctca ccctgatatt 60  
ttcaatatcc ttctccaaat ttttgaagac ggtcacctgg cagactcaca gggtcgcaga 120

gtttcgttca agaatacatt gattgtcatg acatcaaacg ttggttctac atcaatttca 180  
aacggacgac ggaccatggg tttctcaaca gatgacaccg aatcaagccg atatgtcgcg 240  
gtgaaatccc tcgtgatgga agagctgaag ggattcttcc gtccagaatt gctcaacaga 300  
atcgatgaaa cggttgtgtt ccgctcctctg gaacagactc agatgctagc aattctcgat 360  
atcc 364

<210> 8612  
<211> 258  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B11

<400> 8612

atttacatgt tatttgcgta taaaacctta tatgtgtgtg tgatgaggtg tctatgtgcc 60  
tataggttgg tatcatatcc gtcaagcatc aggtatgtta atgactgtcg ggagtgttcc 120  
ccccattgc atcagtctgt ttgcgcttgt gaatctgttc agcaggttca acgagcgatg 180  
ttcatcaggt tcaaattttg gtcacgtaag gtttgacaat attcagccat tttttaaatt 240  
catcagccga tattttcg 258

<210> 8613  
<211> 398  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B3

<400> 8613

ttcaacgtag agaagttgac tcatcaatga ggaactgttg cgatgaatat ccaattaggc 60  
caatcccatt cactttcaca cggtatgttg tgtgtttag tctggtaata ttttgttcac 120  
ttcaatatca ggctgcaatg tatctaccta gccaaatggg gtggaatact taaattttac 180  
ttggtatatt tgtcagcaga tgtaacatgg aagggtactgg caaagtggca atatgattgg 240  
tgttttcttc acaaaggaaa atgatgtcca tctggcttca atgtcacagt tactctggaa 300  
gtctaattct tctgtgttct tgcagcacac aaaaaagga aaaaagaaaa agacaaagga 360  
aaaaataaaa aaggaagaaa aggaaaaaga aaaagaaa 398

<210> 8614  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B4

<400> 8614

catccgacgc ctgtggaccc gcaccaagta gatcgacgtg atcgtgaccg gcgccatgtc 60  
 gcagtacatc cagaccctcg agttctacgg cggcggactg ccgctcatct gcaccatgta 120  
 cgcattcttcg gagtgtctatt tcgggctgaa cctcaatccc atgtgtaagc ccggcgacgt 180  
 cgcgttgacc ctcatcccca ccatgtgcga cttcgaattc ctccccgtcc attgcagcaa 240  
 cgccaatgcc gggccgagcc accgcgacct cgtcgatcta gttgatgtga agctcgggtca 300  
 cgactacgag ctctgtggtaa ccaccttctc aggtttgtgc cggatcgtg tgggcgacgt 360  
 tctg 364

<210> 8615  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B5

<400> 8615

gactacacca aaacgaaatc caccatctca tcgaaagacg ggacaccttt gcctttatca 60  
 agtggtatca gatttccagg ttgctcgggtg agattttaca gtttttcgta gtttagatcg 120  
 agtctgttct tcatacctat agtccacgaa aaagccaaaa aaaaattagg gttagttcat 180  
 cccatccgaa ccaatctgag ccttgcataa tcttttctgt atttgctttg ttgaatttgc 240  
 ggttgcatcg tcgtgttcag ttgctggtct tagcgtctag tcttttagag tttcgagttc 300  
 tgttcacaag ttgtcacgcc gtcgccgcac caccatcatc gcccctgccca tctaccacca 360  
 ccgctctgaa tccgtatcca tataccacca ccaatccgtg gtcataatac aacaccg 417

<210> 8616  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-B8

<400> 8616

tccggggccga ctaactgggtt attcttttggt aggaaccgtg tctagaattg tctggccgat 60  
tcttctgggt gctgaattat gtggcttaag tcgtcggcat ccggcggtcg cacgtaagtg 120  
ccctggaagt tgcgaggaa tgcggcttcc aggtcctccc aagaaccgat tgagtctgct 180  
ggcaagctgt tgatccaatg tcgggcccgt cctttgagtt tgagcgggag gtattttatg 240  
gcgtgtagat catcgccgcg tgccatgtgg atgtgaagga gataatcctc gatccatacc 300  
gccgggtctg ttgtgccatc gtatggctca atgtttacgg gtttgaaacc ctctgggatt 360  
ttatgatcta ttacttcatt cgtgaagcat agcgggtgtg cggcgctct gtattgggct 420  
atatcaca 428

<210> 8617

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-C1

<400> 8617

attaaatggg gcgctgctaa aatatatgac cggctagggt tttgcgggag tattcggcag 60  
cttgctgggtg tcttatgggtg ggggtctgag aattttgaca atgataagca acaaataact 120  
gtgttagtgg tggttggatt gaattttgat tctgaagggt ggaattgctt ggctgtgttc 180  
agatgagagc tcctttgcaa gctccctttc ggatagcagc tagagcttga atttcagagt 240  
gtggcactaa gaatgcttat aatgagtttt gcagacatgc ttgttggtta atttcaatta 300  
tttctcatgg gtattttgtcc cagggttttg actgtcaaaa cggtttctgt tattttgcct 360  
gttttcatca gtgtatactg aataaattgt aatgggaaaa cc 402

<210> 8618

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-C2

<400> 8618

acggggccaat ctagtaagca aacaagattt gtaagaattc ttatgagtgt gttgaatact 60  
aagaaaagtt tgatacttga taattgtttt gagatatgga ggtagtgata ttaaagtcac 120  
gctagttggg tgattatgaa ttcaaagaat gcttgtgttg aagttagcaa gtcccgtagc 180  
atgcacgtat ggttaaagtt gtgtaacaaa tttgaaacat gaagtgtacc tggcttgtgc 240  
atccttatga gtggcggtcg gggacgagcg acggtctttt cctaccaatc tatcccccta 300  
ggagcatgcg cgtagtactt ggtctttaat gacttctaaa tttttgcaat aagtatatga 360  
gttcttttga acaatgttga gtccatggat 390

<210> 8619  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-C3

<400> 8619

acgggcataa taatgtacga agcagatttg aatcgaccag gaatagctag atggcatggc 60  
atgatggatg ccacagcaca cagcagcacc agcagtacag tgttgctgag cgaacgcgtc 120  
catgcatgtg cggaccatgc tctgcctcct ctgcttcagc gcccgcccaa gtgtcggcag 180  
cgccgtccag tccgagaaac atggatggat gaatgattgg ccacctttaa tcaatttgac 240  
actgttcaact cattcattag ccgtcgcttt ttggtacgtg ccaactgacac gtgcactgtg 300  
tacatgtatg ggcgaggacg ctcggcgcgt ggccggtggc gacggtgtcg gagcgcgagc 360  
ggagggcgac ggtggacggg ccggtgtgcg ggggctcgcc gttggcggtc accg 414

<210> 8620  
<211> 317  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-C4

<400> 8620

gccaggggag gatgaagctt atggggacga ccgtgctgat tacaggaaat ctgaaccac 60  
tacgtacatc aatgctccct tggttaagggt tcttgcttac tttgttggca acccaaacc 120  
aggccatatc agacactgag cataagcact tcgccgtgta gatagataac agtgacagaa 180

tgctataaat aggtactata aaggagacaa ataggtttgt gttttcctta gatgacacga 240  
catgttcata ggagtggatt gcatagcatg ggttctaattg ttccaccaat aatgagaacc 300  
taactttaat gattaac 317

<210> 8621  
<211> 219  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-C8  
<400> 8621

tctggcagtg ggcgggagat cggcgcggtg actctggtgg tgtatacggc gaccgcgagt 60  
aagtacacgg tcaggcacgt cgagctccgg tgaacatggg ttgctgtcgg ttatcctctt 120  
tggtgtatat gcttcgtcta cagagctact ttgacatgtt tcaagtccgc ccagtttcct 180  
gaacttgtgt ccatttgcac accgcgtccc tttggaaca 219

<210> 8622  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-C9  
<400> 8622

atcaaataac tagggagaaa actagcaaga atgatccaca caagcatcaa attgtcaaaa 60  
tgctacaaaa ggcaaactgt caattcttca tgatgcaatt gtgccagggt atttggttact 120  
tttctactca tgattaatca agtggaccta gtatccgagc agatgacaca gttatgatcc 180  
acaagaagct caatagagaa gcaagcataa agggaagatt agtaagacca ctgagctcac 240  
ccgtttatga gaactttcga gccaatctt attaagcttg gagtaactta atttgccagc 300  
tctcatggca gagatagcat cattatccta aaataagcca aaagaaacaa cacatgtcaa 360  
tctacaattc ctttttagtt gaatttgt 388

<210> 8623  
<211> 375  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB104-050-Q1-E1-D11

<400> 8623

gcaatctaataaatctgagtaagttttacaa gcgaaagatt tctcatctct atgggattaa 60  
atccccgagat attccaaaga aaaaaaaaaat aataataata aacgattaaa ttatggaagt 120  
aaatattctt gcatttattg ctactgcact cttcattctc gttcctactg cttttttgct 180  
tataatttac gtaaaaaccg ttagtcaaaa tgattaattt gaataaaatt ttactatcaa 240  
aaaaaaaaaa aagatttcaa tttctcgtct taaatgaaag gaacgcatta gactcagtag 300  
tagtatccta aggggtccgc tagtatggta gaaagagatc tctttcaacc atactagcca 360  
ttatggttat tgtaa 375

<210> 8624

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-D3

<400> 8624

gacgggcaga aggacggcga aaagaaggag gagggcgacg gcaagaagga cggcgacggg 60  
aagaaggacg gcgacaagaa agaggagggc gacggcaaga aggacgacca gaagaagccc 120  
gccgccgtgg ccccgtgcc gttcccgac cacatgccgc tgccgcacca catgccgccg 180  
ccctacatgt tcaacgccga ctacatgatg aaccagtacc ggccggcgcc gccggcctac 240  
ccgccgccgt acgtgccgcc gcagcactac tacgtgcgga acatgagcat ggaggagaac 300  
ccaaactcgt gcgtcatctg ctaagtcaaa gtcgatccct cgatcgctcg cgtacgtacg 360  
ttccgtgggg cgaccatgca tgcattctgtg tatagtagta tttt 404

<210> 8625

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-D4

<400> 8625

gacgggctga accacttcca gacggaggcc aactacgtgt cagcgcgtaa gacgaaacag 60

aattcctaca aatccaagcc ttgggacaag cccgccagac cgagtcgcta gactttgctg 120  
aaagagatgg cgccccgagg ctccgtagaa agagaagaga agtggtgttg tatcgccaat 180  
ttttcgaaat ataccgtctg ctgttccctt ttttcccgcc ttgttgcctc ttttttttca 240  
ccttggtgtt tgactagacg gctcgaaata gacagaactc ttgatcgggg cctgtattta 300  
attgtgagat tctttgtagc gcagccggag tagtagaaca tggtgcggtt tttcgcagca 360  
tttttcgcag catttttcat tcttgtttcc ccagcaacat agttaagatt tgttatg 417

<210> 8626

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-D5

<400> 8626

acggacgctt gaacaggata ccaagcgagt gtttaggata ccacacaggg catttcttga 60  
catgctccta gcacaccttg ggctaatac cggctcagta tgatcgtgtt gtacatgagg 120  
acggcaagat ctgtgtgacc atctttttca acacctgtac attggatctt ggaggaccaa 180  
tcagtatgaa cgcgtcgtgt catcattcct cctgggtctac attatgcca gacatgcaaa 240  
gttgtggata gtctgtaagc taccatttgc tttcgtatgt cctatgtctg tgatatttgc 300  
tactaaacct attgtgctac gtgctctcta tgttcgtaca ttgttaggtg gtccttatt 360  
gtgtgcatac aaccaaacct tacttctgaa tgattcttca ttagtttttt 410

<210> 8627

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-D7

<400> 8627

ctccccgggcc gacggataat acatttctca tagttgcgga tgcttgcgag ggggttaatc 60  
ataagtagga ggtttgttca agtaagaaca acacctaagc accggtccac ccacatacca 120  
aattatcaaa gtagcaaaca cgaattaagc caacatgatg aaagtgacta gatgaaattc 180  
ccgtgtaccc tcaagaacac ttgcttatc ataagagacc attttggcct gtccttttcc 240

tcaaaaggat tgggctatct ggctgcactt ttgttactac aatcgttact tgctcattac 300  
aaattatctt gctatcaaac tactctgcta cttacaattt tagcacttgt agacattacc 360  
ttgatgaaac ccacttgtct tttccttctg ctccccgttg ggttcgacac tcttacttat 420  
cgaaaaag 428

<210> 8628  
<211> 416  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-D8  
<400> 8628

ggctctggggc tcccggggccg acgaaaagct caacaagctc atctggagca gtgggatcag 60  
aagcgtgccc cgtaggggtc gcgtgaggat tgcccgcagg aggaacgatg aggaggacgc 120  
caaggaggag ctctactcac tcgtcaccgt tgccgagggtg cctgctgagg gtttgaaggg 180  
gctgggaacc aaggctcgtc atgacactga gtagactctt ttctttatct acatcgttag 240  
aatgagctgt tatttggaat tgcaccagca tgctttttgt atcccgaga agttttggag 300  
tatggaatat cgggagctat ctattttcct tcatctaaat cttgatgatt ggttttgtcc 360  
ttcatactgt gctcgttatt ggcgtcaata caggatgtgc agttgagctt gcaaaa 416

<210> 8629  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-050-Q1-E1-D9  
<400> 8629

ggataagggtg cattagtgtt ggtatgatcg tatttggtac tacatgcaat gcaattgtat 60  
ctattctttt ttgaagactt tatgatccat ttgccgtggg tcccagcatc tatgtaggaa 120  
taccctatct tgtttataac agctttgata catgttaaatt attcgaaaac aatgtccgaa 180  
catataattg ttgtccccta atataacaaa gatcacgaaa aggctcgaaa agtacattaa 240  
agtacaattt ggagtagaaa aaaaacaata gaagaatttc attttccttc ctcatcatt 300  
ggagagctct ctttgggctt tccgaaaagg tatcacatgt caagtttggc ctactgtat 360

aaaagttata aagt

374

<210> 8630  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-050-Q1-E1-E1  
  
<400> 8630

acggggaaca agaggaggtc accaaacaaa tccggaatga ggtcacggat gttaaaactg 60  
atctgtctca aattggcttt gacgttgaag caattcaaca gatggtagct ggactggaag 120  
agaagattga gttgcttgac aataaacagg atgcggctaa tgctggtata tggatatctct 180  
gccgaatggc aggaggtata aaagagggaa taaatgccaa gtttttccaa gaagcggatg 240  
aaaaactcaa gctcttgac ctggctcata ctgaaaagaa gccggtgaag ggtctggagt 300  
tgtttctgga gagcaccaag gaagccaagg cactcgactc caagcctaag accatcgtgc 360  
agaacgatgc caagaaaccg atgaaggcgt tcgacgtgcc tg 402

<210> 8631  
<211> 368  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-050-Q1-E1-E10  
  
<400> 8631

acgggcctgg cactctctct ggaggacagg cgccatggcg gcggcggcgc tggcgcaggg 60  
aactcctcgg gcgattcgcc gctgctcctg ctgccgatgc tggacgacga catctcccgt 120  
gagggtccagc gtctagatgc tgatatggac cgcttcatca gggcccagag tgagcgcattg 180  
aggcagteta tattggagaa agttcaggca aagcagtttg aagcgtggc ctctgttgaa 240  
gacaagatcc tccgaaaaat acgcgataaa gagtcagaag tgcagaacat caacaaaagg 300  
aacctggaac tcgaggacca gattaaacaa atggcagggg aagttggtgc gtggcagcaa 360  
cgagctaa 368

<210> 8632  
<211> 407  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-050-Q1-E1-E2

<400>       8632

```
gacgggacgc cgaagtcctg tcaggatggg cggcgaggtc gtggcttaga ggggagaatg   60
ttaggaataa gccaagcatg agtatgtgct catgtgtgtg atctgcatgc atggatggat  120
tagttagcta gctatggagc cggcgcagct gagtcgcgtg gcagttctgc gtggaggaag  180
aataggaagc aatagttgag gcttggctcct atacgtgtgt atccaaagat tctggagact  240
tggtctgttac ccaagcgtgt gtagctagcc cgtggagtac taatcggatc aagcaaccgt  300
gggcttgacc atgcatgcgt gtgtgcgtgg ggtagtggg tgtgtgtgag tcttgtactt  360
ggctatataa gttgagtaaa tgaatgagaa aagccgccgt gaaggct                407
```

<210>       8633

<211>       418

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-050-Q1-E1-E3

<400>       8633

```
gacgggtcag ataatctgtt gagttttgtg ttgtgaagtt ttcaagtttt gggtaaagat   60
ttgatggaat ttggaataag gagtggaaag agctaagctt ggggatgccc aaggcacccc  120
accaaggtaa aattcaagga caacaaaaag cctaagcttg gggatgcccc ggaacgcatac  180
ccctctttcg ttttcgtcta tcagtaactt tacttgaggc tatattttta ttcaccacat  240
gatatgtgtt ttgcttggag cgtcttgtgt gatttgagtc tttgcttttt agtttaccac  300
aatcatcctt gctgtacaca acttttggag agacacgcat gaatcggaat ttgttagaat  360
accctatgtg cttcacttaa atctttttac ctaaataatt ttgccctagt gcttcact    418
```

<210>       8634

<211>       57

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-050-Q1-E1-E4

<400>       8634

acacacatgc caagaggggtg atatcaaagt tttcaaattt tgggtaaaaa attagcg 57

<210> 8635  
<211> 254  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-E7

<400> 8635

acggatccgc caacggccag ccgaatcgac ggagaaggaa tggcttcaac caggggagac 60  
gtacgatggg agttcgccc cggcgaactg atacggagga tagtgtacgg cgaactgtct 120  
atgtctcaga cattgatcaa catgtcactg aacagaaact tgctgaggtt ttctcaaact 180  
gtgggtcaagt ggtagattgc cgtatctgtg gtgatccaaa ctcaagtatg cgttttgctt 240  
ttatcgactt cgcc 254

<210> 8636  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-E8

<400> 8636

cggaagtctt aacaatcaag ggggtgtggc atccttgtgc tgctccatgt aaactcatgt 60  
aaattattcg gtagacgcag acgcagcagc tgctgatgcc gttgtctggg ttcttggagc 120  
tacaaatttt tgccttccca cgccgtgcat ttgcatgaat tggagggaaa atttgaacag 180  
agctactgca tagtgaagggt tttgcatcgt gtatgtaaga tatccgatat gtgaaaatga 240  
atgcatgaaa gctctgcaaa ttgtgtgtgc atgatttcca atatggtcac aatatccctg 300  
aaaccgtata tctgatttcc tgaattctca gtgttgagta taatgtttat ttaggaaaat 360  
ggaaa 365

<210> 8637  
<211> 363  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-E9

<400> 8637

atacaatgaa aaatgtaact aaattaaagt agttggaact tcaacccaaa gacaaaactc 60  
taaagtctct ttatcatttt ttttcattta tatgaaaaaa aattgataaa aaaatgcttt 120  
ttcgaaaaat aaaaacttct tcaaaatcct tagcaatttt aagataaaat tagattttcc 180  
taattgctca agagaaatca aaaaaattat caaaatattt tttttgatgt atctttttat 240  
attgtacaaa cataagattt tttgctcact taaagtaatt aatttcaaga tctttttatt 300  
cctcattaag aggaaataga agatcttttt ttaatactgt ctcaaggtag tgatgggaac 360  
aat 363

<210> 8638

<211> 360

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-050-Q1-E1-F1

<400> 8638

actttaccgc gattcaataa gagtcaaaat aagaattttt ttaagaagga ttacattatc 60  
tataaatata gaatttagat aaatatacac acacatctgg atatattcta gatcttcttt 120  
tttgactata tattatattt ttctgtttta acaaattcaa tataaaaaaa accgaacttt 180  
ttctattatc tattaatgtg tatctatccg taccgtaata ttttgaata ttatgaatta 240  
gataaattta catgctttct cattccattc gcgaggagct ggatgagaag aaactctcat 300  
gtccagtttt gcagtagaga tggaactaag aaagagaacc atcgactata accccaaaag 360

<210> 8639

<211> 386

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-050-Q1-E1-F11

<400> 8639

atacggactt agcatagatt aattaatgcc tatccaccat atgaataatt aaaaatagtt 60  
atcgagccaa aatgtatact ataatctttg gctgtgttca acgaaagcaa ttatggacga 120  
gcgcggttcc ctcatattt acttaaatg tagatattgc tccatgtaag aatataagat 180

actgactata tattgactaa tgtattactc caatttaacg gaaataaagg tgacacatgt 240  
 actcaatcaa caagatgagt tattcataat gtaatgaaat gggacatatc aaaacttgag 300  
 tggtagagtt gctgcctctt aattacaaac agtttgaaag caacccctcc ttctaactaa 360  
 atctgatatt gctccttatt atagaa 386

<210> 8640  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-F2  
 <400> 8640

acgggcgatt gaaatgtaca ttaggaactg actcctgtct gcaaagtgtc agtgggtgga 60  
 aatatggcaa atgtgaagtt atcaaagaca ccaactgttg cataaaatcc tatgcaggta 120  
 ttgctgcgga gggatatcga agcaaagcgc tcttgatggc aatgaattac catgtcaata 180  
 catccaatag cgctttgttg gatcacatgc caatggtttt ccacacctga cctgagccga 240  
 aatTTTTGCA ccgtacttcc gccatgtag gccgcgtttc atcttttGCT tGttctgata 300  
 gtatttcaac cctttttgtg ggaaaagctg atattggta gatgttgggt atagaagagc 360  
 catagaggga acctgacaaa gacattttcg gcagcacggc ccaat 405

<210> 8641  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-050-Q1-E1-F3  
 <400> 8641

cgggggcaac aatcaatata tcaacttcaa cgcaacgcag cacgggcaac gttggttgaa 60  
 caaggagctg accgagtcca gcaatggcgg cgagggctgc atgtaccggc cggctgctca 120  
 gagcaaccac cgccaaggac agccgtctgc catcgctcgc cccggcggcc agccggccgg 180  
 cgtgccgcat cccgtctctc aagttcccg tctgtggga caccaaggcg aggcaaggga 240  
 agatcagccg cgccgccgag cagagggcgg cgctgatcac cctgggagca tccagcgcca 300  
 gcaccacgga ggagaaacaa ctctgccgg gggaagcgag cagtgtagat ctctgctgc 360



ctctgg

366

<210> 8642  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-050-Q1-E1-F6  
  
<400> 8642

tcccgggccg acggatccgc gggacccgcc agtcagcggg cccagaagc tggcgggaag 60  
gacggcgccc tgagagacag acggctggga cccgcgccca gccggattac tattgtaccc 120  
tcggggggta ggcctatata aaccctcgg ggcacccatg caaagggttc ggacctagag 180  
aggaagatag accagatagc ccaggagaaa gagagctagc cttgctctct cccacctccc 240  
aaaacagctc caggagcacc attgtagtta ctttgcttta gtgatcatgc ggagaccccg 300  
cagagcagca gtaggggtgt tatctcctag gagagccctg aagctgggta agttccgccca 360  
gggtgcatgt cttgcctca tcccgcttcc aggcaccggc gacgttctac tcgtcccaa 420  
catg 424

<210> 8643  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-050-Q1-E1-F7  
  
<400> 8643

cggatccgcg gaccccgcca ctaccgggc cccacaatct ggcgggaagg acggcggcct 60  
gagagacaga cggctgggac ccgctcccat ccggattact actgtaccct cggggggtag 120  
gcctatacaa acccctctgg gcatccatgc aaatgggttcg gacctatata ggaagataga 180  
ccatatagcc cagggagaat atagctatcc ttgctctctc ccacctctca aaacatctct 240  
agtagcacca ttgtagttac cttgcttttag tgctcatgct gagaccctc agatcagcag 300  
taagggtgtt atctcctatg atagccctga agctgggtaa gttccgccag cgtccatgtc 360  
ttcgctcat cccgcttcca ggca 384

<210> 8644

<211> 431  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-F8  
  
 <400> 8644

```

cccgggccga cgagcactgc acttgccatg cataccacgc atgcaaacgt acacgcatgg 60
aacatttggtt attctttcga tggaccgggtc tcctcaccgt atgtgtacat tttacgtggg 120
gcttttcttgc ttttttgtgg tggttaaaac ctgtgtaatt atgattatgt tgggtgtgtta 180
at ttgttggt catggtataa tcaggaactt gtgcaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaattaaa 300
aaaaaaaaaa aaaaaaaaaa aaaaaagcgg gccccccaaa agtttcaaac ttaatttacc 360
cttaaataaa atttaaaacc cctccaaaag tgcccccaaa ttcaaattca gggcccttct 420
tttaaaaatt t 431
  
```

<210> 8645  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-050-Q1-E1-F9  
  
 <400> 8645

```

ctcgtatcca gttacataac cgcaaggtgt cgatgcccat gggcgacact cacacctcgc 60
tcacactcgg gacagcctag gcggatccat gctttccaac gaagcacgcc catccaacct 120
atgcgggtgg aatcgatgtc catggggaca tcgcggtatt tcgtgcgcaa gacgactatc 180
ccgacaccca cacagactaa gataatccat gtcagcccat gccatgacac gccattctc 240
ttcggcgacg aggtgaacag attcccgtgg ggacatctcg gtaatctcat gccaacaagt 300
tatcttccac cacccttagg cctcgaaaaa tccaggtcag cccacacatt aactcacat 360
tcttcgcag 369
  
```

<210> 8646  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G1

<400> 8646

gacggggaga agaagaatcc agcgagaacg tcaaggtcat ctacgcccgc gccaaagcagt 60  
acgccgagga gtacgatgcc caggacaagg agttgggttca gcttaagcgt gaggcccgga 120  
tgaagggtgg gttctatgtc agtcctgagg ctaagctgct gtttgttgtc agaatcagag 180  
gtatcaatgc catgcaccca aagaccaaga agatcttgca gctgttgctg ttgagacaga 240  
tattcaatgg agtggttcctg aagggttaaca aggccaccat caacatgctc cgcagggtcg 300  
agccatatgc tgcatatggg taccggaacc tgaagagtgt gagggagttg atctacaaaa 360  
gaagttatgg aaagctcaac aagcaaagga ttcctctgac caacaac 407

<210> 8647

<211> 234

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G3

<400> 8647

gtgtcacgaa catacacgtg atattgagcc cttgtagaca tggattgtcg taaccccata 60  
ttggtacaat cttcgaaaga caggtctcga tcaccctgca tctaactgtg ctgtcatcag 120  
ggattttattc caatctgttc cactgggcta atacagaact catgtgaacc tgctgtgaac 180  
gttctaacct ttcttttagtc ttccttcgat tttaaattcc tctctctgcg tttt 234

<210> 8648

<211> 347

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G4

<400> 8648

gacgggactt cccatgcaat catgcttccg aaactggtgt ccatatcgct ctataccagc 60  
gacggttttc actacgccag tttggctagt tccatcaact cgctgggcag gactaatacc 120  
atcaagtcca aaaggccctt cagcctttgg ccgatctagc gaaactttat gaaaagtact 180  
ctggctcacc atgaaaggaa ttgcaaaatg cttcaaagta cccacagacc gtgtctacgt 240

agatgtttct acggcaggaa tctgatcgca ttgaccccaa acagctgcta acctgccact 300  
accacggcat ctttgaagta aacatccgcc ctttatacgg acctcat 347

<210> 8649  
<211> 229  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G8

<400> 8649

gaccggtcta cggatatct atcttcatca ttgtttaggg tatcgtgctt tcttgcagtg 60  
gttgagccgt gtgtcattac gattatattt ctctgttcat tggatctgtg atgtttatcc 120  
acacgctcat gtgggttcag atacatggat ggtctgagta caacgctatg tcaggaacac 180  
aacaactggt acagttcatt cataatgtac ttcttgtgtt tgctcaaaa 229

<210> 8650  
<211> 377  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-G9

<400> 8650

gaatatgaat gcatttttca ttcgctgaag agtatcaatg attgataata tacgagggaa 60  
gtgtaatgat tagaaagctg tatatgtttt taggcttatt tttaaaagga gagtaacata 120  
gaaaactact tagaggcgac tgactcacac aaaaaaaaaa cttaaattcat ttttttttca 180  
atcaaccatg ttagtttggt agaaacttaa gtttaggtct tagtttaaca aacgcacgaa 240  
atttcgataa cattagatgt ttacatatt gttgtaccat ttacaaaaac tcctactatt 300  
actttgtaaa ctaaaatcca aaagaatcat ttacaattac cacattccga aaaattaaaa 360  
cttgcgatag tacaaga 377

<210> 8651  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H10

<400> 8651

tcccgggccg acgggagcta caacaactcc gatgatgggtg agatcatggc ttaggaagtg 60  
agtgttatct ataagccata tgagtgtgca tgggtcgtag atgcacatgt gtgtgccacg 120  
tatgtgtgtc taggctcaag ccagaggccg gtgtgtgacc acgtctagct aagcgggagt 180  
agccgagagt cagtcaatct gtttgagttg gtcattgtagt gctatagtgt ggcgcgcggc 240  
cggacgagcc aatcatgcag atcgtgcatg catgtaggag tcagcgggta gtttagctggt 300  
tagtggcccg tgggcgtgcg tgtgtggtgg ccagggttag tgttgtgcgt gcgtctgtac 360  
tagaccgat ataaatcccc tgctgctgt 389

<210> 8652

<211> 176

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H12

<400> 8652

ttgacagggg aactgtacct gctcccttat tggaaagtgg tacatcatag aaaactgttt 60  
ctgtgacacc tacaccagtt agtgaggaag ctaaggatca tgatcatgac acttcagaac 120  
aggatactac tggaagctcg tagatcaacg agatctaaga tccgcaccag agtggt 176

<210> 8653

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H4

<400> 8653

ccacggactc ctgttcatcc agcctccact gcgcgctact ccaccggcta ctgttcaacc 60  
accctccac gggcaccct ccaccctcca ctattcatgc agccctccac ggggtcgtac 120  
tattcatcca gtcctccacg ggtcctgtt catccagccc caaccggctc gatcgatcgg 180  
ggtcctgttc atcccgaggc aacgccaccg ctcatgttc atccaccctc cccccccgc 240  
aacgctcact gttcatccca gaggcagcat tgatcagctt ctgtagcag cagtagctaa 300  
ggaatcgctc gatcgggttc agttaacagc cattgatcga tcgcccgggt tcagtaacac 360

<210> 8654  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H5

<400> 8654

```
ccgggccgac caagacacgg attaaggaat ccttggtgga agcacaccaa ccgcaacagc 60
cgcagccgcc gccacgcttc gtggccgtgc tgcggacgat gctctctgtg ctgcgccaga 120
gaggccacct tgccggggga accaatggct cgcaacacta cacgcggcaa caggctccag 180
ccctcgtcca acccaatccc gttcacatcc ccgactttct ctggggctat tatctcggct 240
acgagctggg ctttgatgat tgcgccaaac tggacgaggt gatagacgac gccatggctg 300
atatggcttg atgacgactc tggctctgat aggaaatgga tgaggctgca tgattctatg 360
catatatagt atcgaaggcc acgtctccg tgtttgtgat tttatttgcc cactgtttgt 420
gtggagtta 429
```

<210> 8655  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H6

<400> 8655

```
ggtacgtatt attattgtga tatcaacatt aggagggtca atggtcacag cgaatcttga 60
tatttgtatg agcaagtttg acttttgcac gtaatcgagg ccagtgtggt gttcgaccga 120
cgaaggctta acgtgacgcg ccccaaaacta agtgcagatg ctaggatgcc gtgtgatgct 180
gcaaacacgg cgatatgccg atggtgatgc gtgagaagcg gcacgacgta tcagaggctg 240
gagccgtgat ggacagcatc aaattgggtc cgggtgaacca gacggtctta tcggtatgtc 300
tggccagctg ttcaaacgta tgttccttca gtctaaccg atagtatcgt tg 352
```

<210> 8656  
 <211> 246  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-050-Q1-E1-H7

<400> 8656

acggatactg taatctggta tctattgttc ttgactgaga aaactaacta gattcagtct 60  
aatcatttat aatgatctta tgtagggaat actatgtcta tttcatgaaa tgacgtcacg 120  
ggcgtatttc atatgatgtg ggctttaaga atccaaatat agttaagcgc tcatgggtgcc 180  
tgtgatatca tcctgacgct cccgggatat tcttttctctg ctgggtctga taaaaggtta 240  
cttctt 246

<210> 8657

<211> 270

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-A1

<400> 8657

ttgaatgaaa ttcagtccaa tttcttgcac gggacgtaag catgcaccca agaacaatga 60  
tttgactttt caaccacttt atgtgcactg gtgcatgtgc atgtagttaa aatttgaatt 120  
atgcacataa gtgcattgac aactcactta atgcataaaa atgtccaaac gaaccacgac 180  
gattctcaaa aaataacaca gcaactcatgt tgttctaagt tgataccgga aattttttta 240  
aagcaatatg aggcaatgga tatagtttctg 270

<210> 8658

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-A2

<400> 8658

ggtttccaaa gaatgaagag aatcgtgctg cgttcgagaa tgttacaaaa atttcgcctg 60  
catttgtgct attcttcaat tgttccgagg aagagatgga aaggcgtctt ttgggacgca 120  
atgagggtag agttgatgac aacatcgaga ctatcaggaa gagattcaaa gtttttgttg 180  
aatccagttt gcctgtgatt gagtactatg acgcgaagga caaggttaag aagatcgatg 240  
ctgcaaaacc aattcctgag gtgtttgaag atgtcaaagc catttttgcc ccatatgcc 300

aggctacata gaacagtata aaggaccaca aaggtgataa atggaatgat ttcatacaag 360  
gttttgctca agtgtgacta catatctgtg attacaaacc cttaatatag atcagactta 420  
tcag 424

<210> 8659  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-A4  
  
<400> 8659

accggtcaaa cagtcacggg ccgacggggg tataaaagaa tatgataagg ttttgcatta 60  
gcttatacta acctatctca cgagttcttg ttgagtttgt tgtgaatgaa gcttttgata 120  
aaaagagaaa ccgtgatatg agaggaatta aggacacata aaagctcaag cttgggggatg 180  
cccaaggcac cccaagataa tatttcaaga agtctcaagc atctaagctt ggggatgccc 240  
cggtaggcat cccgcctttc ttcttcaaca atcatcggtt agtatcggtt gagtctaagt 300  
ttttgcttat tcacatgagt tgtgctatcc ttgcaatgta gttttcttta gctttgcttg 360  
ctgtttgaat aaagtatcaa gatctgaaat tctttaatga gagagccata catgatttgg 420  
aatttgetat aatactctat gtacttcact t 451

<210> 8660  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-A5  
  
<400> 8660

acgggggaag tagtgatatt aaagtcatgc tagttgggtg attatgaatt taaagaatac 60  
ttgtgttgaa gtttagcaagt cccgtagcat gcacgtatgg ttaaagttgt gtaacaaatt 120  
tgaaacatga agtgtacctg gcttgtgcat ccttatgagt ggcggtcggg gacgagcgat 180  
ggtcttttcc taccaatcta tccctctagg agcatgcgcg tagtgcttgg tttttgatga 240  
cttctaaatt tttgcaataa gtatatgagt tctttcgact aatgttgagt ccatggatta 300  
tacgcacttt tacctttcca ccattgctag cctcttcggg accgtgcatt gccctttctc 360



accttgagag ttggtgcaaa cttcgccggt gcatccaaac cccgtgatac gatacgctct 420  
atcacac 427

<210> 8661  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-A6  
  
<400> 8661

ggtaccggat aagcaattcg cgggccgacg ggttatatca ttttgagctt gatagttttt 60  
gctctagtgc ttcacttata tcttttagag cacggtggtg tcttaatttt gaagaaattg 120  
ctagtatctc atgcttcagt tatatatattt tgagagtctt ttataacagc atggtatttg 180  
ctatggttac aaagttggc ctagaatgat gaacatccaa gttgggtata ataaaaacta 240  
tcatagaaaa agaattggat gctatgatca atatgatgct tgataattgt tttgagatat 300  
ggaggtagtg atattagagt catgctagtt gaggtgatta tgaaaaatac ttgtgttaag 360  
ggttgtgatt cccgtagcat gcacgtatgg tgaaccgctt tgtgatgaag ttggagcaca 420  
attttattta ttgagtgtct tccttatga 449

<210> 8662  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-051-Q1-E1-A7  
  
<400> 8662

gacgggtgaa gcatgccggc acgccgtcga tgagctccga cggctccgtg accacgagcg 60  
ccggcgccgg cgagaaggag ccggagctgc tgaatctttt tgtttaatga agctagttat 120  
taatctgcgc gttcattcac cgtagtagta ccgcgcgacg gaccgatcga tcgatgcgct 180  
gctcgctcgc tggcgctgga accagctgaa ctttttggtg gctccctct cgtcccaccg 240  
gcgacgcgcc ccttgattct tttttggcg tgcataaacc gccggctcgg tgtgacacgg 300  
agatgactag atgagaccgc cccggccggc tttgttcctt gtctactccg ataatagtac 360  
cgctgctttc taagcaccac cactactgct acaaagat 398

<210> 8663  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-A8

<400> 8663

```

ggtagcgtac tacaattcgc ggggtcgacac cacctatgga taggctatTT cctcgcgggt 60
cccaaatgtc agaatccaaa tctgtcacgg ccatgcagcc tttcctatga aaatttatag 120
cccatttgat gtgctggctc gaaataagtt tgtgggtgct ggtgggggct agtcacttgg 180
cttctgtaat gcacagtgag atcaagcagc cggcgagggt gatgttatTT cccttggttg 240
ggatttgTTa caatatttca ctcaaaatta aacaaatggc aagccatttg ccttggttca 300
aagaaaatat gacagtcaca gccgagttga aaagggcagg aacatctaac tccaacttac 360
aaactgtaca aaagtacgag ggTTaattgt tcatcaggtt tacaaaaaaa ccagattgaa 420
aagggcaaca acatctaact ccagcactgt t 451
  
```

<210> 8664  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-A9

<400> 8664

```

gacgggaatt ggatacggga tcgttcttgg gccaccggaa gcgtcgcagg catggcagat 60
gaggaggtat cagacccaaa gggactccta caggatcgta ccaaggctaa gtgtgtctac 120
cagtggatatg aatatcagaa atgcgttaag agaattgaac gtgatgagac cgggcagaag 180
cactgtactg gccattactt cgattactgg aaatgcactt acaagcatgt tgctgagaag 240
ctctttgata gcttacaatg acaaggaaat tgttctctct agctactttt cactcaacac 300
tggttaataaa tagtatcatt tgcacgcctt atctgacaat tcaggctctt atcatcatat 360
atgtaaaaga aggttttgcc tgtcgggtaa cagcacagtt ttt 403
  
```

<210> 8665  
 <211> 295  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-051-Q1-E1-B1

<400>       8665

```
gtgcatcaat gagagcttcg gtgggttcg cgacgggacc gggacattgt tcgtcaacat   60
ggctgacagt gttgtttcgc ttgacatcag gacgttgcc atggagagggc tatgtgttcc  120
gccactacg aacggagacc cctcggcgac ctctaccct acgagatggg ggcgtggccg   180
ccggagctca aggacctggg gaatcctccg gtgaatgcat atcgtggcac tgcgtgctga  240
ttactgtatc gtgtgttttg gtggtgtcag tgacaatgga actgctaagt tcagt      295
```

<210>       8666

<211>       421

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-051-Q1-E1-B2

<400>       8666

```
gacacggcac cagtagtcgg ccgcagtaca acgggggatc taccggcaga cacgggtcca   60
aagctactca tgcgcttagt agccaacaag cgggtcaaacc aaccaagcct ccgcccgtgc  120
agagcacggg aggatcactt gcacgaaggc gtcttgaag gccaaatcac gcgtgtcaca  180
ccagcagcaa taaagctacg gatgcaacga ttttccaaag gcaactttat cgggacatcg  240
gtgcaacggt gtcggacggt cttatcatgc acgaaacggg ctactttcct gtttcccag  300
ccgcattcgg ctgttgggtc agaatttcac ttgagacgta caggagaccg ggacagcgat  360
gacgttgcca ccgaggggca acgtttttcc ggaggcgaca ttggagggac atcgttgcca  420
c                                                    421
```

<210>       8667

<211>       413

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-051-Q1-E1-B3

<400>       8667

```
gaaattcacg atttgatgac ttggtgacca tagtacaaaa gtactatgcg atggagagcg   60
```

cctggaaaac cgaaagtaaa ttttgggata atccggcccc gaatacatcc ctagtccaaa 120  
ataaaaggggt gcatcattac caagcacctg tgtaaacaac caaaaaacca aaaacccta 180  
aagggtacgg aaccgtactg gagggttggc taaacggacc ctgcaaaatt catagcacag 240  
agggcgccac tccaactcac agccttcgag catgttggat actacggcag gtggccaaaa 300  
gtggcgaaaa gcttctagct tcagaatccc aaccagcaa caccagtaca gtgttaacag 360  
tcttcgaaac tttggcatca aattacatgc gaaaacaaac actccgcaac ctt 413

<210> 8668  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-B4

<400> 8668

gggatatctg aacacaatct ctttattgca ttcagtgaag aaatctgttg cagaaaataa 60  
aatacgtacg tgtgcttgca ctgtcttcct aataatctgg tgtaagtttg cttaatctgt 120  
ccttttttaa tcgacaatgg atgttggcag gagcaactga cccaccacga tgctcagttc 180  
agtagaaaaa aaggatgctc agttcagtac agatctgttg tgattttgca aggcctactg 240  
ggggcaaggc acaaatgtat caaggggggtg tatgtaaaaa gataactgag ttgatcccct 300  
cccttgcatg cagatccaac acaccatggg gtcttggagc agcgtatcat gagatggacc 360  
gtagcactag atattttccc ctgctgtac accaagcaaa atcgaccttg gac 413

<210> 8669  
<211> 453  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-B5

<400> 8669

taccgaacta gaattcgcgg gccgactttg acgatacgac tacgaacgtg cgaggacgtc 60  
gcgcttagc aatcgctaaa ccaactccga gaggttattg accacgccgg agcacgatca 120  
acctgaccac gagggctctgt ttctgcgag caaacgaaga acaagcaaga aactgagatt 180  
gcaatctgga tattgcgaat ataagatgaa agctttattg atcaaggtgg ggttctgtga 240

cgccctttgtc tggtcgttga acacaaacga agtacgcgaa gttgcagcta tggatgaactt 300  
 ttaattctaaa caaaacccaa agtctaaatg atgccctaag ggctgtatat atggaggaag 360  
 aggggggaat ttcgtggccc ttggtggagg ggtccgaaat caaccctatc tcttgtttcc 420  
 ccacacatac ggactctaaa aatagcctat act 453

<210> 8670  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-B6  
 <400> 8670

attcgccggt cgacgggagc aaaaacgaca tattgcagag gaggtgtgat gagcagtttg 60  
 ccatccaccg tgcacaagat ccagagctgc tcggcggcat gatcgacgac ccacccgaag 120  
 aaccgccgtc accagtgtc atcgagagcc tgataccccc caaggaatgg gcagaggacc 180  
 tctgcggttc agtcaagaca aaggcagcat gtggcttcat cattgcctgc ggcggccgtg 240  
 tcaacgtcga tccccgatgat gtggtggcca ggctcgagcg catccttggc ggagttgacg 300  
 tccccgatga agtagaacat cgccaacatg atatcttgag gatgcaggtg atcgacggaa 360  
 tttgctacca agcgagagac atggaaatgg agcgggtccc cggagttgtc atgcgcgtga 420  
 ttgcacgcta tcaagctctt c 441

<210> 8671  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-B7  
 <400> 8671

attcgccggt cgacgggctc aagaagtccg tcttcgggca tgacgacgcg ctccggatat 60  
 aaggccagag cggaagtgtg ggtcacgaat ccttgggaga tcaagtctcc ccagacatca 120  
 gtgacgtagt ctaggttttc caaaactaat ctggtgacct gggaggtagc tgtcgatctg 180  
 ctccagatgg ccaagcgagt tggcccacag tgcgaagccg ccgaacatga agatctggcc 240  
 ggggagaaaa acttcccccc ggacagcatt gttgtagatg attgacgggg ccatcaaacc 300

tcttgggtgac gacgcagcgg aactctcagt gaaagcacca gtctcgggtgt caaaaccggc 360  
 ggatctcggg tacgggggtca cgaactgtgc gtctaacgtc gatggtaaca ggagacatgg 420  
 gacacgatg 429

<210> 8672  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-B9  
 <400> 8672

aattccccggg ctgacgggag ggagagaggc gccagggctt ggggtgctgc tcccatgcgc 60  
 ctccccacga tagatagggg tggagggggc tggtttcttg ccctccaagt ccactggggc 120  
 gttggcaaag gtgggggaaa gaaatcccat catttccctt cccacccgag ttgttatccc 180  
 ccttttttag ggatcttgat cttatccctt cgggatatga tcttattcct tcgaagggtg 240  
 gatcttgggtg caccttgacc agaggtgtgg ggactttccc ccactaccca cgttcaagtt 300  
 ggtectccca tgcaagttgg cctcacttcg taaccttcta 340

<210> 8673  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-C1  
 <400> 8673

gggttgcaac aatggtcgtt cacgatcaca ttcaacggca gcttcctcgg tacaggggggt 60  
 cagtccctgg ccgtgctccc aacctgaacc gcaatatgga gagaggccac gccctgctct 120  
 atgctgattg cttttccaac aaactgttct tcaagccgga taaattccga cgccgttttc 180  
 gaatgggaag gcatgtgttc aatcgtatcc gaaagggagt ggttgctcat gaccatact 240  
 tcgagtgoaa gatggattcc cttggcgagc ttgggttctc ctcttgccag aaatgcatcg 300  
 cggccgtccg catgcttgcc tatggaattc ctggcgatct ggtggatgag tacgtgcgta 360  
 ttagcgaaac aacatgtctg atgtcaatgt acaagttttg tcaggttgt 409

<210> 8674

<211> 429  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-C2  
  
 <400> 8674

```

gggtgttgta ataggttagga caccttattt cagaaaatca ataataaaca aatgcaacat   60
ggatagttca catatctgca tggatagttc agaaacacta gtcattttca ttcattctctg  120
catcagcatg atagcactca agttcacatt gacagcacia catgggggat gctccagtat  180
ttcaaaataa aagagaggaa aaaagggaca tgccccagca tgatacatgc tccagcttgg  240
gctccacaaa agataaagta catgggttaac agcatcttgc tgttttctagt tacacaaaaa  300
tgatgtagcg catacatttg tctacaaaaa agcagtctaa aactatctag gaaacacttt  360
gctccaattg acatcttcta agaactactc agcagtttct gaaactcttc ggctgagttg  420
agtgtgttt                                     429
  
```

<210> 8675  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-C4  
  
 <400> 8675

```

gggaaaacga aataagaact gttctcgcaa atccacttca gtttggcgac atggcgacaga   60
aggctgggag acgaatgagt gattcctcgg acatccatga attacatatt agcacctgca  120
taatcgagaa agcagattac aaataatggt agaactctgaa cgaattaaga agatgtgggg  180
aggggggtgg cagagaagga cgacggtggt cgtcgcacga cccgtgatgg atgagctcca  240
ccggcgacgc ccatgacctc cgaagaaggg gtggaagagg gtcgagcgga gctgctcgcc  300
ggggaaggga aggcagctgg ccatggaagg gagaggattg ggcggtggga tctagatcaa  360
gatttatttc tttttctaag aacatct                                     387
  
```

<210> 8676  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-C6

<400> 8676

attcgccggc cgacggggag aacaagaaga aggacgggga gcacaagaag gacggcgagc 60  
acaagaagga cggggagcac aaggaggga tgatggagaa gatcaaggac aagatcagcg 120  
gcgacggcca cggcgacggc aagaaggacg gcgagcaca ggagaagaag gacaagaaga 180  
agaagaagga caagaagcac ggcgagggcc acaaggacga cgacggccac ggcagcagca 240  
gcagcgacag cgacagcgac tgagccagct ccggccgcgt gcagtgcagg ggagatgaac 300  
gcgtgggtta atttggagcg tgtggtagca tatgtatgta atgcttgaca tgtctcatgg 360  
atcttgtaat gtaataaccg gctgcactgc atggtgcttg taataataac g 411

<210> 8677

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-C7

<400> 8677

attcgggggc cgacgaagtc atcaaaaacg cattcgtaat cgacgggaac gtcttcttcc 60  
actgaacgca caatattgaa agggctgaaa taaattcaga aaaatatgag caccaacgtc 120  
aaataaagtc tgacacttaa actctattcg gctgaggata ccactgtcct cataaccatc 180  
caaccacagg ttaatttgtt ttttctttct tttaaggata cataatttgt ctgatgagat 240  
tgattttaca acacttgctg cgttaattaa caagctcgag aaaaacacat cagatgaacg 300  
agtaataagt gggcaggcaa cataaaacaa gaaatgcaaa ttgaccatag ctcatatggt 360  
tatgtttctt gtggtggaac caactcatta gaatttaagt ccttgactta gtatcggcgg 420  
tcgcattttt ctgaa 435

<210> 8678

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-C8

<400> 8678



taccggacta aaaattccgg gtcgacgggg cggactggtc cgagtgaaga gaaaaaaaaag 60  
ccatacggaa ctcaaaatat tttccggaga tattcatttt cctgaagagg cggataagat 120  
attaggtggc tgtttgatac cgccagaaag acaaaaaaaaa gattctaagg aatcaaaaaa 180  
aaggaaaaat tgggtctatg ttcaacggaa aaaaaattct caagagcaag gaaaagtatt 240  
ttgtttccgt tcgccctaca gtggcatatg aaatggacga aggaagaaat ttagcaacac 300  
ttttcccgca agatctcttg caagaagaaa ataatctcca aattcgactt gtcaatttta 360  
tttctcatg 369

<210> 8679  
<211> 369  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-D1  
<400> 8679

cggtaataca agtaaattaa attacctcat cttggagctt agtttgtttc tttaaagcaa 60  
tgatcagctg catatgttat atttacctgc tttggtgttg ctgaaatgct tatattcatt 120  
tttgttaaac ctctatttta ttttattact aaaaaggcta tgaagcttga gcatcatagt 180  
ttgcttctca ggggtgaatc atgttggtgc tatgcagtag gtatgggtgc caagaagcac 240  
tacgggaaac tgcaagaac actattaaaa ttctttgggt gggtgttgat gtcttgagag 300  
caagtacaat agagttgagt tagttggcta taagaatac actagtatat ttttgcttag 360  
ttggaggaa 369

<210> 8680  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-D3  
<400> 8680

gggttcaaac gacaggtacg aggaggagga cgagtacagg aagaagccta ctagtggtgg 60  
tgaggaggtac gaacaggatg atgagtacaa gaagaagccc agtggtggtg ggaggtatga 120  
agaggatgac gagtacagga agaagcctac tagcgggtgt ggcggtacg gaggtggaag 180

gtatgaggga gaagatgagt acaagaagaa gcctaccagt ggtggctatg gtggggggag 240  
 gtatgagcaa gaagatgact acaagaggcc ccctagtggg ggctatgggt ggggaaggta 300  
 cgaacaagac gatgagtaca ataagaagcc tagtgcatgt ggatatggag gtggaggagg 360  
 gagatacgaa gatgagtaca agaagccaac cgggtggccat gct 403

<210> 8681  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-D8  
 <400> 8681

aattcgcggg ccgacggggtc ccactagtat acgaaagtga caaaacaaga gactctctat 60  
 cataaagatc atggtgctac tttgaagcac aagtgtggaa aaaaggatag tagcattgtc 120  
 ccttttttta ttttttattt ggcctttctt ttttcttctt tttttggcct ttatctttat 180  
 tttatttggg acaacgctct attactgatg atcatcacac ttctatttat ttacaactca 240  
 aagattacaa ctcgatacta taacaaagta tgactctata tgagtgcctc cggcggtgta 300  
 ccgggatggg caatgaatca agagtgcacat gtatgataaa ttatgcatgg tggctttgcc 360  
 acaaatacga tgtcaactac atgatcatgc aaggcaatat gacaatgatg aagcgtgtca 420  
 taat 424

<210> 8682  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-051-Q1-E1-E1  
 <400> 8682

cggcttacta tccggccgac gggggcagaa acaaggggac gagcatcggc ggctatacga 60  
 ggagcatctg ctgcgccgag agctgggatc accttgaccc gttcatggcg ccgcgatggg 120  
 cgaaacattt caacgtgtac aggtcctgag agtgagtgat tcacaagggtg gaagatcgtg 180  
 atgatcggct gaacacaaag tctggttacc agtttgacca caatgtgatt cttggttggtt 240  
 ctttctttgc actcttacia gcatttcaag gaagtgtttg ttaatcttta catggctttt 300

gttgtgggtt cagagtccat ccatgttgtc caatatgtgt gcaaaagctt ttctttctgc 360  
ccttgctcgg tgtgttttgc atttgtgtgt 390

<210> 8683  
<211> 423  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-E3

<400> 8683

ccatcgacga cttcgtctcc ggcgccaccg tctatggcta cagaggaaag agcattaagt 60  
ctgccctcat cgggtggttct agcctggcat tcacatctgc cattctggac gttggcggtta 120  
acactaccag agtggacaat ggcaaagcgt accatgcata cacaacggaa aagaagccccg 180  
agcctgcgca ttgatcaagg ttgtctactt gtagcacaaa tcatgcaaac cagctcggtg 240  
aatttttgag ctgatgtgtg ctgttatgtc tgttttgctg atgcacctag ttcctttgca 300  
aagctgtagt aacttgtttt gctcgagggc aatacaacag acctggaata aatatcttgc 360  
tttattttgc ttcatcattg gttacgataa taatcacatg tgacacaata ttgttaccct 420  
aac 423

<210> 8684  
<211> 360  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-E4

<400> 8684

ttcggcgctg acggggacca aaaccaacga ccaaacgaac cctaaactcc gagcgcacga 60  
ggagagagag agggagatct ccaaggctgc ggccatggcg atgcgtgcgc tgtacaacga 120  
gatccgcgcg atgaaggggtg cgcgaggtgc ccgcgtacct caagccgcgc ctcacctggg 180  
cgaacgtgaa gaagagcacc gaccaggcgg tggaccgcta catcgagaag tacatcgaga 240  
ccagctcggc tgaccgcgtc ttccacatct gttcggcgg catggccttc tcgtacctcg 300  
tgggcctgcc ccaagagcgc cgccacctcg agcacctcga gaaacacggc ggccactaga 360

<210> 8685

<211> 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-E5  
  
 <400> 8685  
  
 attcgcggtt cgacggggtc ttgatgaaac tgaatatgat cttcctttac ctagaaggcg 60  
 ctctaaaaat tcagagtatt tagatcttaa tgatgaaatt gatgaaagtg ggattgaaag 120  
 aaataaaaaat ctagatgcta aaccactat attggatttc aaggaattta attatgaaag 180  
 ttgctcttta attgagtgtg tttccttggt gcaatccgtg ctaaattctc cacatgctta 240  
 tagtcaaaat aaagccttca ccgaacatat tgttgatgcc ttgatgcaat cttatgaaga 300  
 aaaacttgag ttgaaagttt ctatccctag aaaactctat gatgaacggg aaccaactat 360  
 taaaattgaa attaaagatc atgagtttta tgctttgtgt gatttgggtg ctagtgtctc 420  
 tactat 426

<210> 8686  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-051-Q1-E1-E6  
  
 <400> 8686  
  
 gacgggggca gtaaataagt cgagcggggt catatttcag ggcccaacgt gtgctagtag 60  
 ctcttcatgg atcacaaaca cagaactcag ttcttgagga cggtttcaag gagacaaccc 120  
 accatgtact cctacatggc ctctcacatc tacctttacc aaattgagtt cacacgctta 180  
 gccctcaata gtagaacatg ttcacacgcc tccaattcat ccccgatgaa tcagacctaa 240  
 ctcaactcta agcagtagca ggcacgaca acaagcatga atgagtaggc acatcagggc 300  
 tcaaacaact cctgctcatg ctagtgggtt tcatctatct actgtggcaa tgacagatca 360  
 tgcagaggaa aaggggttca actactgcaa catgtaacag ttgaatcctt gttgtcctaa 420  
 tg 422

<210> 8687  
 <211> 442  
 <212> DNA

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

<223> Clone ID: LIB104-051-Q1-E1-E9

<400> 8689

acgggcagca agataaaggt gtgtgcggtt gagggcatat acttcagaag gattgactat 60  
ttgtgattag gcaacagaac aaaaacagtc agccagatca aagtgtctgc gattgatggc 120  
atacacttca catggatgaa ctgtttgcga ttagccacaa caaacagaaa cagttagaca 180  
catcaacgtg tgtgcgctag acgggcacac attctaatta aaagaagtgt gcgcgatggc 240  
aataacgagc gcgcacggtt gttggaacaa gacgtgtgct gacattgcct attacagtgc 300  
accatatggt gcaaacgcca cgtaggcggc cgagaaagcg tgcccatggt acgccttccg 360  
ggaatagtgc tgcac 375

<210> 8690

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-F1

<400> 8690

acgggtcggc tcagaatcat gtctttggtc aatagttggg ttgcccggct cctatgtttg 60  
ctaccttacg ttccgtttgt tcggctaggg tagtaaaggg agaactactg cggttgtggt 120  
tatggttcat ctagtcaagc acctcagtag agaaagccga aaactgactg tcatgatgcg 180  
gcgagagctg gtcagccatt cggtgactta ctaaactctt aacgattttt ccgtttttaa 240  
cgaaggacta tttttccagt catatacata acgcatccgc attcgaatag ccgcatacat 300  
accaggggct attttatagc cccatcatca aactcctatg gataagtgag agccgtaaag 360  
ccgtatagtc cgattgcctg gttcgacgca ctaacacctc cgtcacgga 409

<210> 8691

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-F10

<400> 8691

ttccccggcc gacgggactt gtgattaaag tttgtgattc ccgtagcatg cacgtatggt 60

gaaccgttat gtaacgaaga cggagcatga tttgtttatt gattgtcttc cttatgagtg 120  
gcggtcgggg acgagcgatg gtcttttctt accaatctat ccccttagga gcatgcgcgt 180  
aatactttgt tttgataact tctatatttt tgcagtaagt atatgagttt tttatgacta 240  
atgttgagtc catggattat acgcactctc acccttccac ctttgctagc ctctctaata 300  
ccgcgcactt ttcgccagta tcatacacct accatatacc ttctcaaaa cagccaccat 360  
acctacctat tatggcattt ccatagccat tctgagatat attgccatgc aacttttcac 420  
catccaat 428

<210> 8692  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-F11  
<400> 8692

attcccggtc cgacgggact tgtaatagag tttgtgattc ccgtaacatg cacgtatggt 60  
gaaccgttat gtaacgaaga cggagcatga tttgtttatt gattgtcttc cttatgagtg 120  
gcggtcgggg acgagcgatg gtcttttctt accaatctat ccccttagga gtatgcgcgt 180  
actactttgt tttgataact tcgatatttt tgcagtaagt ataggagttt tttatgacta 240  
actgttcact ccatggatta tacgcactct cacccttcga cctttgcgag cctctctaata 300  
accgcgcact tttcgccatt atcatacacc taccatatac cttcttcac agagccacca 360  
tacctaccta gtatggcatt tccatagcca ttc 393

<210> 8693  
<211> 419  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-F2  
<400> 8693

gggcttcttt agaaaatttg acacaaagaa aaaatgtcac ggagattggt gctcagacaa 60  
cttctcgggc gaggaatgca acgcaaagag ccaaatcggt ggggtgtttg gcgctctccg 120  
tgtcactgat gacctgttga tgaggagggc gtattttagg aagcagcagc ttgacaacaa 180

aacaacatca cctaactcta actgaagagg acagccggtg tgatttgctc ttacattgat 240  
accgcatgcg tatgaataat ggtccaatgg aattgggagc ggagtaagaa gctcatgttg 300  
cctttatgca tgtaataatc atgcctgcct gcatggcccg ctagctgttg gtccaatgcc 360  
tggctgcctg cctgaactgg cgtcaatttc cagtttgttt ttgtaataata taataactc 419

<210> 8694  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-F4

<400> 8694

ggggaattaa aatactttac cgcgattcaa taagagtcaa aataagaatt tttttaagaa 60  
ggattacatt atctataaat atagaattta gataaatata cacacacatc tggatatatt 120  
ctagatcttc ttttttgact atatattata tttttctgtt ttaacaaatt caatataaaa 180  
aaaaccgaac tttttctatt atctattaat gtgtatctat ccgtaccgta atattttgga 240  
atattatgaa ttagataaat ttacatgctt tctcattcca ttcgcgagga gctggatgag 300  
aagaaactct catgtccagt tttgcagtag agatggaact aagaaagaga accatcgact 360  
ataaccccaa aagaaccaga tttcgcaaac aacatagagg aagaatgaaa ggaaaatcct 420  
g 421

<210> 8695  
<211> 358  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-F6

<400> 8695

tcttggtgag tttggtgtgg ctgaagcttt tgtaacaag agaagccgtg acatgagagg 60  
aattaacgag acacaaaggt tcaagcttgg ggatgcccaa ggcaccccat aatcatattt 120  
caciaagttt cagtcatcta agcttgggga tgccccgtta ggcacccac cttacttctt 180  
caacaacgat cggttactat cggttgagcc taagtttttg cttcatcaca tgagttgtgc 240  
tatecttgca ttgttactct attttgcctt gcatcatctt tgcataagat accatcatgt 300



caaattcttt aatgaaatag actctttgca taggttcaaa actatttaac ctcccttt 358

<210> 8696

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-F8

<400> 8696

ccgacgggcy gtacagacgt gcccgagaa gaagttgatc cagcaggtgg tgttcgccag 60

ctacgggaac ccgctgggga tctgcgga ctacacggtg ggcaaagcc acacgcccac 120

ggccaaggag attgtggaga aggcgtgcgt ggggaagagg agctgcgtgc tggccgtgtc 180

gcacgaggtg tacggcgggg acctcaactg cccgggcacc acggccacgc tggccgtgca 240

ggcaaagtgc tccaagaggc agaggaccgc cgagcaataa gtaagctaag ctacagatatg 300

tactgctatg tagatcatct catcaccttc acctttgccg accatggact ttttcaggct 360

gcttgtttgg gatgcgtgca tacgtgttgt actttgttga gtccgtgtgac ttgtt 415

<210> 8697

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-G1

<400> 8697

tccggggccga cggggcagtt cacgaaagca ctaaagtttc tgttttctac agcaagttca 60

acaagacttt cccaagtct tccaatggt tctacttggc acaaacta attaaacaca 120

aaaaacacaa ccaaaaaaga ggctaaataa tttatatatt aggaaacagg agcaaaaatc 180

aaggaataaa aataaatttt ggttgccctc aaacaagcgc tatcgtttaa agccgctagc 240

taggcataaa agcgaggata gatctaggta ttgccatctt tggtaagcaa tccataagtg 300

gctctcatga tagtttaata tggcaatttt atttcatttc caggaaagtg ttccacaccc 360

tttttaatgg aaatttagat cgaacactcg cttccttc 398

<210> 8698

<211> 353

<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-051-Q1-E1-G10

<400>      8698

```
acgggtaaca gaacaattgg ctttgaagaa gcaataaccg ttcgtactaa tgaatacagc   60
acgaattaca agacatggaa agataagaca acgaaaacat tggtacaaag cagacatata  120
gtttcaaatac aattaactat tgaagctaata gtgccccaaaa gaatctagga gtataactac  180
ctacttcaaaa ggcatatttta tacagttctt ctacatttta tactatcccc tgcgaaatgca  240
tgggttgacg actagtgaga gtaactcttc agctcataca ttgggtcactt ccccttcatg  300
cttatcgaag gatgaatggg atgatgattg ttatgatcat gttgattctt ttg          353
```

<210>      8699

<211>      446

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-051-Q1-E1-G6

<400>      8699

```
attcgccggc cgacggggccc aacaacgcgg ggagaagcgg cgaccccacc cccacaagag   60
cccaggaacc cgtagaatct cgagtggacc acatcagcga tctctcggac tccgtccttg  120
gggagatcat ctgcgttctc cccaccaagg attgctgccg caccacaagtc ctctcaattc  180
gggtggcgccc tctatggcgc gctgtgcccc ttaatctcga ctgtcgtcat ctagctctct  240
tcaatgattt tgaaatcccc agagccatca tctcctccca ccagggtcc gttcaaagcc  300
tctacatccc gccttctacc tgagcaagca tagcatgccc tgcattggtg acgcctggct  360
ggaatcccct gaattcacag aactacagct gcttgagttc tactattccc ctggaaatca  420
cataccacat accgaatgcc atgaac          446
```

<210>      8700

<211>      433

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-051-Q1-E1-G8

<400>      8700

gacggggcta gtaaacaac cccttttcga atccaaagac aaacagctct ggaatatctc 60  
 taagtctaag gagaagcacg ctaagcaact agaacatcct aatgccggtg aaaaatcccc 120  
 ttcccgaaaa caagtaaagc gctctggaat aactctaagt ctaatgagaa gcacgctaac 180  
 caactagaac atcctaatgc cgggtgaacaa cccctttttc gaaaacacat taccacaact 240  
 ctggaatatc actaagtcta aggagaagca tgctaattag ctagaatatc gtaatgccgg 300  
 tgaacaatcc catTTTTCAA atcaaagaac atcagctctt gaatatctct aagtctaagg 360  
 agaagcacgc taaccaacta gaacatccta aaccgggtga acaatcccc tttctaaaac 420  
 actttcacac cag 433

<210> 8701  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-H12

<400> 8701

ttcccgggcc gacggggacg ctggtgcccc tgcggagca gcagctggtg gactgcgaca 60  
 agtacgacgg tggctgcaac cgaggctact accacagggc cttccagtgg atcatggaga 120  
 acggcggcct caccacggcg gcgctctacc catacaaggc ggtgagaggc gtctgcttcc 180  
 gcgccaagcc cgccgtcacc atcaccgggc acgcggcggt cgccaagaac gaattggccc 240  
 tccaaagcgc cgtcgcgagg cagcccatcg gcgtggccat cgagggtccc agcagcatgc 300  
 agttctacaa gagcggcgtc ttctcggccc cctgtgggta tcagatgacc cac 353

<210> 8702  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-H2

<400> 8702

ctgtttttca attagataat gtgaagtaac tttcagtata ggaaatctca ttttccatat 60  
 gccgataatt ctctcaacat gattccgaag ttgagcatgt cgaagattaa ttagttccct 120  
 gtgattttgt ggcctttgac gaactcttcc ttgttcgttt aaatgatacc tagtaccacg 180

gtatggagca agaaactgtg gtgtgtttgc ataatcagca tccacgagat aaaatttacc 240  
atcggaact tcaaaacat ggttaagtgc atcatctaga actcttgc atgaagctga 300  
tccctcccaa ccaggatgta tatgcacaaa cttcaagtca aaatctcagg caaccataac 360  
attctgcgag attgtttgcc tcctatttct gtatggttct tgctcatcca atggaagct 419

<210> 8703  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-051-Q1-E1-H3  
<400> 8703

accggtcaaa ctatccgggc cgacgggagg ttgataata acttgatatg aagtttcatg 60  
atcatcatca ttagcttccc cactaattgg tgtangaatc actggaactg atttctgtga 120  
tgaactactt tccaataagg gagaagggtgc agttacctca tcaagttcta ctttctccc 180  
actcacttct ttcgagagaa actccttctc tagaaaggat ccattcttag caacaaatat 240  
tttgccttcg gatctgtgat agaagggtga cccaacaatt tcctttgggt atcctatgaa 300  
gacgcacttc tccgatttgg gttcgagcat atcaggttga agctttttca cataagcatg 360  
gaagcccaa actttaagaa acgagaactt tggtttcttg ccaaaccaca gttcatatag 420  
ggtttaatgc gttttctgag actaac 446

<210> 8704  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-051-Q1-E1-H8  
<400> 8704

aattcgcggg ccgacgggaa gatcacgctg actgagctga cggacgcgct gcggacgctg 60  
gggtcgacct ccgcgacga ggtgcagcgc atgatggcgg agatcgacac cgacggtgac 120  
ggcttcatcg acttcagcga gttcatctcc ttctgcaacg ccaaccccg gctcatgaag 180  
gacgtcgcca aggtcttctg aatcagttca tttcacctca gccgtccgat ccaggagcgg 240  
atccatctac gtacggcttc gtatatcaat ttcatgcaac tacctactcc ggtcccgatc 300

cagcctcagc ttcacctgag gccggcccta attttgtttg atcatttttt ttgctaccag 360  
tagtaactag tgatgatcac tgttccatca tttatttatt ttatatcatc acaagtttct 420

<210> 8705  
<211> 106  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-051-Q1-E1-H9

<400> 8705

cactatggct ccagtctcat cgcttctttc tttcttcata acacgtttgc tccttttcca 60  
tggctactgc ggctcactga gggtagacca ctggtctgca gttttc 106

<210> 8706  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A10

<400> 8706

cggctctagag attcccgggc cgacggggag ctaattccgg tacatgggct ccctcacggc 60  
gccaccgtgc gccgagaacg tctactggaa cgtcctgggc aaggtgaggc agatgaccaa 120  
ggagcagatc gacctcgtca ccgcgccgct gccggccgcc gccaaagcaga acgcccggcc 180  
ggtgcagccg ctcaacggca gggtcgtcac cttctacaac ccgcccaaca gcaccatctc 240  
cttcgacatg tgatcttacc cccattagat ggagtgctaa ttaacctaga aattaacgtg 300  
ttactgtatt cgtgtatcac catcagcgta ctgaccagct aatctcgttt ttgccttgtc 360  
attatctctt cgctgcttta ctcagatgaa acattgtgac 400

<210> 8707  
<211> 398  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-052-Q1-E1-A11

<400> 8707

gacggagaga gcaagcagga gtgtggtcta cagtcacatg tgagagcacc aaggaagagg 60  
ggaggctttg cagcacgcat gatcttgcca gttctatcgg tggctcttct cgtccttgtc 120  
agcgttggga tctatggatg ggcataatag ctctctttat ggtgggattt aatgtgtcac 180  
atcccccca catcggctgt gatcattgta catactgtgt cttgctgcct gcgtttaaga 240  
cggttgtaag acagcgaagt gtttgttccc cttcgggcgg gggactgtga aatgaagaag 300  
tgaggtaaca aatgagaagc gggatgaagc aaggagcaac tgttgctgta natgcctgtg 360  
acttagtaca tgctagtttt tgttttcctg tcatcaca 398

<210> 8708  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A12

<400> 8708

ggtctagggt tcccgggccg acggaggata cacaagcgtc taagcttggg gatgccccag 60  
aaggcatccc ctctttcttc aacaagtatc ggtatctttt cggattcgtt tcgttcatgc 120  
gatatgtgca atcttgagc atcttttgca tttagttttc atttttcttt tatgcaccat 180  
gctggcatga gatagtcctt ggttgattta tagaatgctc atttcacttc acttatatca 240  
tttgaagttt ggatttcctg tttctcttta catagaaaac cgccatttgt agaattgttct 300  
tttgcttcac ttatatattgt tagagcacgg gcatatcttt tgtagaaaga ataaaactct 360  
cttgcttcgc ttatatctat ttagagagat gacaggaagt ggtcattcac atgattagtc 420  
ataaaatcct aacataaac 439

<210> 8709  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A3

<400> 8709

gttgggagcc aagcgtcagg tactgtctat gatatcaatt caaaatttga actcctaaat 60  
ttctgcttgt gccttacctt ctctcttgta tgaaaactaa tttcagatga atctccttgc 120

tcaaaggatc atatgatctc aaaacaataa tgggctctgc attgctcttg tcaatacctc 180  
tctccctttt gccttgtgac gctgtactta attaattact atttaattat gtatcatcag 240  
tctgcacctg cgcttcatta acctttgttt ctccaatat tatttgatct atatttactc 300  
tttgcaaaat gtacaataat ggcaacgctt ataaagaatt ttctttgggg aatttattga 360  
attatccttc catcaacaat gagaagggt t 391

<210> 8710  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A5

<400> 8710

agggcacaca acggtggcag tggcacgcta atctgatccg acccaogtag acctaatac 60  
gcacgagaga aaccagatac accgctccag gagataagat cgtgggttct tatctggatg 120  
ttcatgggct tttattatgg catttttaaa tcctttttaa tgtgtataca agctgagatt 180  
ggagggggag gggggcaact atgcttgtag gtgtgattta tctctctttg tgcgcaccga 240  
ttcgaagtat cagtcgatgg ttggggggct tggccctgc ttgtccccc ttgctccgcc 300  
actgggaaga cccatgtgtc acgataattt tgtagatga tgtacaactc aatcgtctat 360  
tcaccagagg tgtatcaaata agttgtatt tgtctttgtt ctcttgacg ggtaacacc 419

<210> 8711  
<211> 436  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A8

<400> 8711

ccgggtcgac ggggtggaag taggaaaatg tgtttgggct atcaaatttt gtccctatcc 60  
ttttcggtag caaacagttg tgttttgaac tagagaggat acaagatgct ctttgtgggt 120  
ctccaagta caagagtgc aatggagagt tcctgggtat tacttctgat ccttgtgagc 180  
attggaagct tcaacaaact gcaatgtcag gattcctgat agagattggg tggtaataa 240  
agaagccttc tccagatgaa tttaaaaatt tactgagtaa aacaaatggt aagagatgga 300

tatgtgtgtt ggagttcttg atacagaaca attttatcaa tgttcttgaa atgattgtga 360  
aatcatcgga caacatcata ggctctgaga ttctttctaa cctggaaagt gggcggttgg 420  
aacatcatgt cacagc 436

<210> 8712  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-A9

<400> 8712

agataattca cctaattgatg tgatcccgtt aatcaaataa caactctttg ttcattggta 60  
ggaaacataa ccatctttga ttaacgagct agtcaagtag aggcatacta gtgacactct 120  
gtttgtctat gtattcacac atgtattatg tttccggta atacaattct agcatgaata 180  
ataaacattt atcatgatat aaggaaataa ataataactt tattattgcc tctagggcac 240  
atttccttca gcgcgtagta atttgtttcg ataactaata gatttttgta ataagtatgt 300  
gagttcttta tgactaatgt tgagtccatg gattatacgc actctcacgc ttccaccttt 360  
gctagcctct ctagtaccgt gcaactttcg ccgggtacat aaacccaaca tttatc 416

<210> 8713  
<211> 157  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-B1

<400> 8713

atggagaatg tcagtgtgat atgtcaagta gtggacagat aagccaacca ctggatgtgg 60  
ttttgagggg tttttgcagt ggggtttgta ggggtctatg ccgcgctggg tttgggattt 120  
gaaataaaac gaaggagat gtgccacgct cttaagg 157

<210> 8714  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-B10



<400> 8714

ccgggtcgac gggcctccaa ctggtgctca ggcttcgtgg aggcattgcag attttcgtca 60  
agaccctcac cggcaagacc atcaccttgg aggtggagtc ctccggacacc atcgacaacg 120  
tgaaggcaaa gatccaggac aaggagggca tccctccgga ccagcagcgc ctcatcttcg 180  
ctggcaagca gcttgaggat ggccgcaccc tggctgacta caacatccag aaggagtcca 240  
ccctccacct ggtgctcagg cttcgtggag gcatgcagat ttttgtcaag acgctcaccg 300  
gcaagaccat caccctggag gtggagtcct cggacaccat cgacaatgtg aaggccaaga 360  
tccaggataa ggagggcatt cccccggacc agcagcg 397

<210> 8715

<211> 230

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-B3

<400> 8715

gtgttttcac cttctttttg tgtaccctgg agtctgtaat atcatccttg ctgtgggtgca 60  
tcgggtttgt gcacatcttc cggtagagtt cagttcgctt cccgtgttaa aactagtgat 120  
tgtcatggag attactgttt aactgagata ccgatgttgc catggtggat agaacaataa 180  
tttatgcggc tgagaaataa tggcgttact ctgactgttt ttcacccact 230

<210> 8716

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-B7

<400> 8716

ggtcgacccc caactgcact tttctttctc gacgagtacc tactggacaa gcgtatttgt 60  
gttttcagcc ttgttttggg caccgaggag cctggaatat cttacgtgct gtgctgctcg 120  
gcgtttttgc acatcttccg gaagagttca gttcgcttcc cttgttaaca ctagtgattg 180  
tcgtggagat gactgtttta ctgaaatacc gatgctgcga tgggtggatag aacaataatt 240  
tatgcggatg agaaatattg gcgctactgt gactgtgtat caccactta tcttgtgatt 300

tgcgagccta tttggcaatt ggaaaaaaaa aagcaagcaa atcaccgaac catccgaacg 360  
 tcacgaacg 369

<210> 8717  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-B8  
 <400> 8717

aatgcccggg tcgacgggga ggttgaaaag ctgattggca ggatagtga gttggctgaag 60  
 cccggtgggc atattttcat cagggagtcc tgcttccacc agtctgggga ttccaagagg 120  
 aaagtgaacc cgacgcacta ccgggagcca aggttttaca ccaagggtgtt taaggaatgc 180  
 cactcctatg accaagatgg gaattccttt gagctttctc tggtaacttc caagtgcatt 240  
 ggagcttatg tgaagagcaa gaagaaccag aaccagatat gttggctatg ggagaaggtc 300  
 aagtgcacag aagacaaagg ctttcagaga ttcctggaca atgtgcagta caaatccact 360  
 ggaatcctgc gttatgagcg cgtgtttggg gagggttatg tcagcaccgg tggattcgag 420  
 aacacaaaag aatttgtgga ca 442

<210> 8718  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-C1  
 <400> 8718

cgggtatatt gagagtcccta taaaacagca tggtaatttg ctttggctat aaaattagtc 60  
 ctaatatgat gaacatccaa gatgggtata ataaaaacta tcatataaag tgcacgaat 120  
 actatgagaa gtttgatact tgataattgt tttgagatat gaagatgggtg atatttgagt 180  
 catgctagtt gagtagtttt gaatttgaga aatacttggt ctaaagtttc tgattcccg 240  
 agcatgcaca tatggtgaac cgttatgtga tgaagtcgta gcatgattta tttattgatt 300  
 gtcttcctta tgagtggcgg tcggggacga gcgatgggtct tttcctacca atctatcccc 360  
 ctaggagcat gcgcgtagta cttcgtttcg ataactaata tatt 404

<210> 8719  
 <211> 302  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-052-Q1-E1-C11  
  
 <400> 8719  
  
 ccgggccgac gggatatgca cggagccggg gtactcgggc ctgatcatcg ccgggggtcgc 60  
 gagtgtttgtg agcctcgcca tgaccgtcta caacatccgg cagcgccctg tctttgctta 120  
 gctgcggatt attgagcatc ttggaacctc aagagtggcg acctgaagaa gggtcagact 180  
 tgcccttgcc tatggcagtt taatgttgct attatctgtc ttctgttgga tgtgttatga 240  
 gtatgttggt ggttaccaag gttctatatc taaaanaaaa aaaaaaataa aaataaataa 300  
 aa 302

<210> 8720  
 <211> 210  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-C2  
  
 <400> 8720  
  
 tcgacggggt gacgatgcgt gtcgggaatg gttccaaggt cgatgtgatc gccgtcggca 60  
 cgctacctct gcatttacct acaggattag ttttaaacct caataattgt tatttagtgc 120  
 tagctttgag catgaacatt gtatctggat ctcgtttaat tcgagatggc tactcattta 180  
 aatccgagaa ataagggttg ttcaattata 210

<210> 8721  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-C3  
  
 <400> 8721  
  
 gctgcatacc attcaagtat agagctgatg aaacttctgg tgatgaacag aaaaaagttg 60  
 ttgaagttct catgataaac tcccaaagcg gaccaggttt attattcccc aaggaggat 120

gggagaacga tgaaacggtt gaacaagcag ctgctcgaga agctatagaa gaagctggag 180  
 ttcaaggaga tatagtgcaa tttctaggtt tctacgattt caagagcaag acgcatcagg 240  
 acgcgtgctg ccccgagggc atgtgcagag cggcagtgtt tgcgctgcac gtgaaggagg 300  
 agctggcctc atggcccag cagagcacc gccggaggac ctggctgacg gtccccgaag 360  
 ccacgtcaca atgtcggtag c 381

<210> 8722  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C4

<400> 8722

cggcgggtgcg gcaggcgcag gccgggtacg cgggtgtacgg ggtggactac gagggccacg 60  
 gcaagtcgga ggggctccag ggctacatcc cctccttcga cctcctagtc agcgacaccg 120  
 acgccttctt caccgccgtc gtgcctcca ccgccaacac ggacctcccc cgcttcatcc 180  
 tcggcgagtc catgggcggc gccgtggcgc tgtcctcca ccggatgcgc ccggcgtact 240  
 ggaccggcgc cgtcctcgtc gccccatgt gcaagatcgc tgatgagatg cggccgcac 300  
 cgggtggtggt gagcgtcctc aagctgatga ccaacatcat cccacgtgg aagatcgtgc 360  
 cgaccaccga cgtcatcgac gccgcctaca ggatgcaaga gaagcgcgac gagattatgg 420  
 aacaacccc 429

<210> 8723  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C7

<400> 8723

cggctcgacgg gatatcgcta gcaatatgaa agttatcttt tcttcgacaa aaaaaaaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ataaaaagaa aaaaaaaat 180  
 aaaaagaata aaaaggaaaa aaaaagaaa aaagcggggt ttctaaaagt ttaaaaactt 240

catcatatga tgacgggagt ttaaaatttt gaaagtttg accaataatt tttttgaagg 300  
gtcgtttttt aaaaaccggt aataggggaa aaacctgttg gttccccaat aaacccgctt 360  
gttgaaaaat taacttttat caaaagggtt ataattgaaa a 401

<210> 8724  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-C9

<400> 8724

cgggtcgacg gagtctctca tgcttcactt atattatttt gagagtcttt tagaacagca 60  
tggtatttgc tgtgatcata aagttgggtcc tagaatgatg agcatccaag ttgcgtataa 120  
taaaaactat cctagaaagt gaattggatg ctatgatcaa tttgatgctt gataattggt 180  
ttgagatatg gaggtagtaa tattaaagtc atgctaattg ggtgattatg aacttaaaga 240  
atgcctgtgt tgaaatttgt gaatcccgta acatgcac 278

<210> 8725  
<211> 386  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-D1

<400> 8725

cggcacattt aaagacttat ggtactagca tttcttctta cgatggtttg ttttcttcag 60  
caaaatgcac tgctataatg gccgtttctc aggcctgttg ttgttggcga aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaagaacaaa aaaaaaaaaa aaaaaaaaaa 180  
acaaaaaaaa aagaaaagaa aaaaaaaaaa acaaaaaaaaa aaaaaaaagg ggccccccaa 240  
aaggatcaaa cctaactaac ccgtgaatga aacttaaaac ccctccaaaa gggccaccaa 300  
aattaaatta aagggcgtcc ttttaaaaaa ttcgtaacgg gaaaaacccg gggtttacca 360  
aattaaaccc ctttgaagaa aatccc 386

<210> 8726  
<211> 416

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-D2  
 <400> 8726  
 cggcggcgaa cagcggcatc gcggcagcgg cggcttgggg ctggggcggc taaggtttgc 60  
 ccgggcccgt gtccaggctg aacatggccc gtaggtcggg gcgtgttttt ttaaaataat 120  
 tacgcgtaga agaaaaataa aaagaaatac taaacggact ccaaaaattc cgaaataaat 180  
 tttcacgggc ttctaaaatc aagccgcaca aggtgaacat ttatttggca cctaaatgca 240  
 attttgaaaa acacacattt ttctaaatt caaataaaac accaaaaaaa ctccgaaaca 300  
 aaatcttatt tgattttatt attaaatcct caatatttct ttattttggg aaagtcattt 360  
 tattccact ctcatatttt tgcaatagaa ataattgatg ataaaataaa taaat 416

<210> 8727  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-D4  
 <400> 8727  
 cggcattctt acagagaaag gagtggctgt gttgcctgat atctatgcta atgctggtgg 60  
 tgtgatcggt agctattttg agtgggttca gaacattcaa ggattcatgt gggaagaaga 120  
 aaagggtgaac atggagctcc ataagtacat gaacagcgcg ttccagaaca tcaaggccat 180  
 gtgcaagtct caagattgca accttaggat gggagcattc accttgggag tgaaccgggt 240  
 tgctcgcgcc accatcttga ggggctggga ggcatgagga attccagatt ccttatcgaa 300  
 taatccatgc ccgacaccgt ggtggatgac agttcttata tccaccatca ttgatttggg 360  
 aaattcatca taagttgccg gcatgccagg agtccaattg agataatttt cggtgtacat 420  
 gac 423

<210> 8728  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-E1

<400> 8728

ggtcgacggc ctgaataaaa aaggaacagt tcgagtagta tctacaaata ttaccgaaaa 60  
cattgtgaaa atactttctac gagagggttt tattgaaagt gttcggaac atcaggaacg 120  
taacagatat ttcttggttt caactttgcg acatcaaaag agaaagacta gaaaaggaat 180  
atatagaaca agaacctttt taaagcgtat cagccgaccc ggcttacgaa tttataccaa 240  
ctatcaagga attcctaaag ttttgggtgg aatgggaatt gctattcttt ctacttctcg 300  
aggaataatg acagatcgag aagctcgact aaacagaatt gggggagaag tcttatgtta 360  
tatatggtaa tcgccccgcc tatagtgtc gaattctatc tcgccccttc tatttttaaa 420  
ataaaaatag aaaaata 437

<210> 8729

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-E12

<400> 8729

ggcttaggac ccccggtcg acgggcatcc cttcccca gtacaagacc cggggcttct 60  
ggacctaaaa ggtataattc tcaacaaaa actgcacaga cattagatgc tctgtttcta 120  
gtagcaagtt tcagttgagc gtaagcatac caattactgc tgtatttgtc tacttgctgg 180  
gaccatcttg ttacataga tgttttaact caaggcagat catgcagggg tatttatgta 240  
tttttatttt ctttagaggt ttaccacat gcatacatga tgactggcat catgaactct 300  
atgagccaaa ctgcttaatt gcaaccaatc cttgggcact tagccaaagg attgtggtcc 360  
aatctatcgg tggtttaatc ctagctacac tatcagaaaa atttccctac ttctataaca 420  
aaa 423

<210> 8730

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-E4

<400> 8730

cgggtcgaga ttcacgggtc gacggcgaag tacaacgacc caacatatat ggtccgggcg 60  
 tgtcgtgcaa atgcatctga tgccatcttg tgactgtgc ttggacaaaa tgctgtccat 120  
 ggagcatttg ccgggttcag cggcatcaca tcaggtatth gcaacacaca ttatgccttc 180  
 ctcccgatca cagaagtcac cacaacaccg aagcatgtga acccaaatag caggatgtgg 240  
 caccgatgtc tcacgtccac tggccaaccg gacttccact gactcgcgtt gagcgtttac 300  
 ttctctgcac aggctaaact cgtaatgaat taacatatth ttgcttacc acagactagt 360  
 cacagctgaa agattagtca cgggtgcaagc taccaacatg ttaacaataa tgtaatactg 420  
 agaatgaact cgatcgactt gtttc 445

<210> 8731  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-E9  
 <400> 8731

ttcccggggc gacggggggg ggaaaaataa tgatgacccc tgagtccgcy aaaccaagg 60  
 gaaaaaaagg ctaggtggcg aatggtaaaa ccaatgttgg gcattgctgg aagagcttta 120  
 ctttaaggcga actgtcaagg ggttcccatt atagcccaac cgcgtaagca acgcaaaatc 180  
 cgggaacata acaccgatat gacggaaact agggcggcaa gagtggaaca aaacaccagg 240  
 cataaggccg agccttccac cctttaccaa ttatatagat gcattaatta aataagatat 300  
 atagtgatat cccaacaagt aaacatgttc caacaaggaa caacatctcc atgttccaac 360  
 aaggaaacaaa cttcaatctt cacctacaac taacaacgc 399

<210> 8732  
 <211> 319  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-052-Q1-E1-F1  
 <400> 8732

cacggcgtgt gagtatcatc cctaccttct ccatttagcg cgcgaacgag acaatttgtg 60  
 gccatccgcy tgattggaat ttcgatttgt aggttttcaa tactactata tatgctacaa 120



ataacatttg taggctttca ataatatattg tcttgcaacg gggaaaaatc acttacaatg 180  
gacaaaagag tcaggggtac cagatctttc aaagtgtgag atgcgggtgac gcacagaaga 240  
agctcgcttc aattcgcaag taatcccact tcactacgct gtcaaaatgg cccctccata 300  
caagtaaaaa cccgtcggt 319

<210> 8733  
<211> 396  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F10

<400> 8733

ccgggcccgc ggaggccggg aaagaaatga ggaagggcac caagacaacc accgcggtc 60  
gggggggcga gaagacgaag aatccccagg agatgatcac gacgggtgatg ctgtacacag 120  
tcatcatgta gaagatgcag gacatgatga tgatgctggc ggagcagacg acgctggacc 180  
atcgatgggc tgggtgcagg accctcatat tcaatagctg cttctcaagc agacggataa 240  
cgcaagagct gccgcccag agaaagccaa gatggatcaa cttgagttag acgcggttac 300  
tccattgtat gaaggatgca ggcccagga taccgcctg aaagtaacgc tcatggctct 360  
ggagatgaag gtaaaacaca aaatgaccga cgcgtg 396

<210> 8734  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F11

<400> 8734

ccgggcccgc gggagctgct actcatcgct ccttctctc cgcgtccgct cctttctctc 60  
cgctgcgtcc ctttccgcca gatccgacgc ccttccggct tgcgttgcc tcgcccgcgt 120  
gacaaagttg ggagaagggg gttggccgct gtcttgccgt tgggcccggag cagcggtggg 180  
ctggacgccg cttctgctg tcttcgagcg atgggagagg gttagggctc gtcgtttgcc 240  
gttcgattgg tgactgttgc gggttggcag cgcgccgtgt agctgcgaga caacttcctt 300  
gttgatctgc cgtcctgctg cagtgttata tactgtcgaa ttccaaaaac gaggtctgcc 360

acacgcgcat atcctcatct ggcgtaaagg agacaaagat

400

<210> 8735

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F12

<400> 8735

cccgccgga cggaatccta aagtagttga caacataaac tgaattgatt tgttcacacc 60

catcactgta gagtaacttg tggtgggtga tatacacaca tgttgtcaaa accaatttta 120

ccccaaacc gctgcttggt cagtactgaa aaaaaaattc aaaggtggga aaatggcata 180

gtgttttatt tttaacaatt ttcttctttt aaaatccaac acttggagtt cgaacacaat 240

ctaagtaccg agaacctttt catatctcct cataagtaca acaaaacatc gatgacttaa 300

tttccaaata ttacaaagta aatacccgta acttgaaatg aacatgaaac actgtcatag 360

atcgctcgac gggcccagac catcagcatc cctaataaac tggataagaa taacaaaa 418

<210> 8736

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F2

<400> 8736

cggcgtccaa tcatgtgcat tatttgggga attggaccga gatacatcat agttgcttca 60

caactccata tttggtccag aatcaagatc aagatgatgc actcacatag agtaaccact 120

tgagctcaaa ttcggcaagg cagcatgttt tggacatata aagatgctgt aaaaatttcg 180

taccaaattg acttggcaaa atggaacttg cttcaciaaac atcctctttg tccagaaact 240

tgcaataatt tttggggaga aaatggcttg attaaatgtt cccaaatttg gtggagagat 300

gggatattgg taggagcatg atctagtaat ttttcaaaaa taatgaagca atataaataa 360

cacttgcttc acaacctgaa aatattaaca gaatataaga tatgaaactg tgctcacata 420

gatga 425

<210> 8737  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F3

<400> 8737

ccggtcctag attcacgggt ccacggcgac ggaagagaag cagccgacgt ctccgtcgcc 60  
 gtcgtctcgt tcgtcccca atcttcaccg agcttccgct ccccgagca acgaggagga 120  
 aggaatggac aagtatcaca gcaacacccg ctttgcaccc ctgagagacg ctccatttgc 180  
 tctccgtggt gccttttgta cctccaactc gtctttcaac aacatggatg gccttagaca 240  
 ctctcaagc attgggcaag caaggagcta cacatcttct cccttaggag ctctgcgaca 300  
 gaagattcct ccatctggaa accgatccct acatacaagt cgtcccttgc ctgctcctgt 360  
 tgccaaccgc ccaactgtct cccatcttcc tctgaagaag ccacagctga gcgctacgtt 420  
 ctccatctca caccgtatat ttggcgt 447

<210> 8738  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-F4

<400> 8738

ggtcgacggc ggatgtgaat tttgatttaa ttagtgtttg tgccaagtag gacctatagg 60  
 ataacctacg atgatagttg atttgattct gctgaaaaac agaaactttg catgcacgaa 120  
 tataattatg ataaattaca ggaacatgct tttgcgttga ttctttttga tactgatcaa 180  
 taaacaaatt ttcaggactt actagtttgg tagaattttt agagttccag aagtttgcgt 240  
 tagttacaga ttgctacaga ctgttctatt tttgacagat tctgtttttc gtgtgttgtt 300  
 tgcttatttt gatgaatcta tggctagtaa attagtttat aaaccataga gaagttggaa 360  
 tacagtaggt ttaacaccaa tataaacaaa taatgagttc attacagtac cttgaagtag 420  
 tcctttgttt t 431

<210> 8739  
 <211> 418

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-F6  
  
 <400> 8739  
  
 cgggcgaaca tccggtgccc cttagcgatc agctgaagca gctgggtcgag ctccacaagg 60  
 tggccgaaca ggccatgaag ggccttatag tttggctgtg gcccaaagag gccatgcctg 120  
 ggagctactt cggcctgggtg cggcgggtgg tggatgcgtg tccctggggtt gaagtcacat 180  
 agcactccgc ctgcattgaa ggtgcccac cggcccttgc ccgtgctaaa gtgcactggg 240  
 gcaggatgga cgctgagaag cttgtgacgg acgcgccacc accgggcaag gagtatcgca 300  
 gcccgagatg tattataagg gtgtcctgaa gggcgccgc attattgcgg gtgagtgtct 360  
 caaggatgta atatttgagt agactcgcat tttgttatcc tgtgcgctga aaactttg 418

<210> 8740  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-052-Q1-E1-G1  
  
 <400> 8740  
  
 ggggtccacgg cgagacttat cgcctaggcg gcgtaggtgg gctcgagtgg gccgaaggcc 60  
 aaggggtaag gggctgctct tttcttttcc tttgattttt tactttttat ttaattttct 120  
 tttctatttt cgtttagttt cctgttttat ttaggttctg ctatcanatg aattttgttg 180  
 accatgtaaa tttgcaaata acccagcac tatattttgg ggctgcacaa aatgcttccg 240  
 ggcaattgga gttaatatata attatgattg tatttgaaag ggcaaaaaaa ggtgtcgttg 300  
 gtccattgtt taaaatccat ggggtgtttt aaacatctcc aaaaatattt cttaatgaat 360  
 gagaattatg tagtgaatat ttccaaccta aggaacattt ttaatttaca gtttttataa 420  
 attctaattt gact 434

<210> 8741  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-G10

<400> 8741

ccgggtcgac gggaagtaca acaacttcgg cgatggaagt caagattatg gggagattat 60  
taggataatc atgactttga tgcattggata agctagctac atgcgtgcgc gagttgggta 120  
gtctatgcat ggcgtgagtt agctgggttaa gttgtagct acgtgcatgc atcgcatgga 180  
tatgggtgca tgtgggtgag atattctagg aggtgagtgt ccgtgtgtgt gcatggatag 240  
agtttgtag actccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaa aaaaaaaaca aaaaaaaaaa aaaaaaaaaa aaacaaaagg aaaaaaata 360  
caacaaagga aaaaaaaagg caagaacaaa aaaaaaaaaa ggggccgcc 409

<210> 8742

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-G2

<400> 8742

cggctggccg ggacatgtat ggatactgta cttggaattc ttgcgagctg tgactgatgt 60  
gctgcaaata gaatgaccgg ccatgaatta taaggctgag cgatgtgcgg ttgtctctc 120  
cgtttcttag tttcgaatca gcaacgcgcg tttgctgac cgtaagctgc accggagttt 180  
gtatccacgc gttttttatt tcttcataga aacgtttgta tccacgcgca ggcggtgacc 240  
cacacggatt ttctccaat gctccagact acacggaatg ggccaccaac tttcagaaat 300  
gcatattggg ccaggcctaa tgaagcgaac caacaggctt tatttgggcc gggtcagcgt 360  
cttgaaagtt ttcaagtcct caaagaaagt tcttcatcga ttaaaaaaaa gatcttcaag 420  
ggccaaccta tattaat 437

<210> 8743

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-G3

<400> 8743

gtgacgggtcc tacattcacg ggtccacggg cccagtagaa gaattgttaa aattcactag 60  
agcatgataa aattctgatt tttttacaca agattgatat acaaatttcc cagtttgtac 120  
taattttttca caatttttgg agttatagaa gtatatgaaa tttccagatt actacaaact 180  
gttctgtttt tgaaaaattc tgttttcctt gtgttggttg cttattttga tgaatctatg 240  
ggtagtatcg gggggtatga accatgaaga agttggaata tagcatatat aacatcaata 300  
taaatttata atgagttcac aacagtacct aaagtggatga tttgttttat tataactaatg 360  
gagcttatga gttttctatt gagttttgtg ttgtgaagtt ttgaagtttt gggtaaagtt 420  
ttgatggagc acgaaataag gagtggcaag agcctaagct tggggg 465

<210> 8744  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-052-Q1-E1-G5  
<400> 8744

atgcccggtt cgacgggtta tgaggatcgc attgtgaact tgtcatcagt tgcccacctc 60  
catacatatc caaaggggat tctgtttgat cagctcaatg acaagaaaat atacaatgat 120  
aaaatggcct atggacaatc taagcttgca aacatactgc acgcgaaaga gctctccagg 180  
cggctcaagg aggaaggagc taacatcaca gtttaattgcg ttcacacctg attgatcatg 240  
accaatttga tgaggcattc ctttgctctc atgaaggcaa ttcaagttgt cacctacttg 300  
ttctggaaga atgtaccca gggagcggca actacttgct acgtagggtt caaccctcag 360  
ctgaagggtg tgacaggcaa atactttgcc gactgcaacg aggagaagac gagcaagcat 420  
gcgaagagcg 430

<210> 8745  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-052-Q1-E1-G6  
<400> 8745

ccgggtcgac ggggaatgat agttgctttg gaagaaaata atgatatgca tgaatctata 60

gataattatg attccgatga tttgattgaa atatcccttg atgaacatga tgcttgctat 120  
tcttatggcc atgataccaa tatttatgga gatgaatttg ctatagtttc tgatgttaaa 180  
catgagattg ttgccattgc acccatactt gatagttcct tgaatcgaaa gcatgattgc 240  
gatgaagtta ttataaatta tattaatgtc aattgtgtta atgatatgca aaaccctaag 300  
cttggggatg ctagttttgc tatctctact atttgttgca atgatcatga ttgggatgat 360  
tcttcttatg atcttgaaaa tttatttaag ccccatgatg aacatgagat tgataataat 420  
gtttgtaata atatttaaaa tggg 444

<210> 8746  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-G8

<400> 8746

gggtcgacgg ggatggctat gattaccaac ttgtaacgcc cacgacgagg ctatatctcc 60  
cacgtgtcga ggcacgactt agaggcataa ccgcatagtg gttttgtcgc aagaaggggc 120  
atcttcacac aatcccatgt aatgaacaag aatgggataa agagttggct tacaatcgcc 180  
acttcacaca atacatgaat ataattcata catcatccga aatacaaaca tatagaccga 240  
ctacgggtcaa aatccagatg aaaataagac aaccccaaat gcttgatccc cgattgtccc 300  
aactgggctc cactactgat catcaggaaa agacacatag taacgaccac gttcctcgtc 360  
gaacgcccac ttgagatcga ccccatcgtc ggcaccggca tcgtcggcac ctgcaactgt 420  
tttggtagaa tctgtgag 438

<210> 8747  
<211> 411  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-H1

<400> 8747

cacggcactt caatataaaa aaaaaaaaaa aaaaaaaaaa aacataaaaa aaaaaatatt 60  
aaaagcaaac aagtatgaaa aaaatacaaa aagtcccaac cactaaaaag ataaaaaagt 120

caaaaaaaaa accggccgcc caaaagggttc aacactaatt tacccttaaa tgcaacgtaa 180  
 aaccctcca aaagtgccac caaatttcat ttaacgggcc ttctttttaa aaatccttaa 240  
 tgggaaaaaac cctggcttaa ccaacttaaa tccccttgaa gaaaatcccc ttttcacaaa 300  
 cgggggtaat atcaaaaagg cccgcaccta tcccccttcc aaaaatttgc ccaccctgaa 360  
 tggcaaattgg aacccccct taagcggccc ataaacccg gggggtttgg t 411

<210> 8748  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-H10

<400> 8748

ccgggccgac ggacaacaca ggtcgcgtaa tcctggacct gaaacccggc gagtaccgtg 60  
 agaagatctt cctcaatctc agcaagccct acgtcacttt caagtccgat cccaagaacc 120  
 cggccatcat cgcttgagc gacaccgctg cgacgctagg gaaagacggg aagcccggtg 180  
 gcacgggtggg gagcaccact tgcgccatcg agtccgacta ctctgtggcg tacggcggtg 240  
 tgttcaagaa cgacgcgcca ctggccaagc cggggggcaa gggcgggcag gcggtggcgc 300  
 tgcgtacgtt cggcaccaag caggccttct acaactgcac catcgacggc gggcaggaca 360  
 cgctgtacga ccacaagggt ttgcactact tcaaggactg cgtgatt 407

<210> 8749  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-052-Q1-E1-H11

<400> 8749

ccgggtcgac gggacctcca tggcggccac cccttgtctc tatataagta gatccgtcta 60  
 gtagcttttc cttgggtttt gttgagttaa aagttagcca gtgcaacttc gtgtacttcg 120  
 tttgtgtcca acgaccagac caagaccgct tacggatccc caccattata aatacttcat 180  
 atatattcgc aatatgcaga ttgctttatc atattcttgc tcgttcttcg attgcttgca 240  
 ggaatagacc ttcgtggtca ggttgatcat gctccagcgt ggtcaataac ctctcggagt 300



tggtttagcg attgctaagg cgcaacatcg tgcacgtttg tagtcggatc gtcaaagtcg 360  
tctccaccaa attgatagtt atcatctcat cgaaagattg ggacaacccc gcct 414

<210> 8750  
<211> 386  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-052-Q1-E1-H12  
  
<400> 8750

gggccgacgg gccggcatcc cctaacaagg agataaacca acaaactgtg gtgcctcagc 60  
gaaagcaagc gaggtttgtg ctaccaaaga ggcgccaggt ggacgccgag gcgcggagcg 120  
agctgcagga cctgatggac gcaagggagg ctggcatgtc cttcattctg ggtcaactccc 180  
acatgaaggc caagagcggg tctagcttcg tgaagcggat cgtgataaac ttctttctacg 240  
agttcttgag gaggaacagc cgtggcccggt cctatgccgc taacataccc catgcttcca 300  
ccttggaggt aggaatggtc taccaagtct gatagtagca gctgtgtgaa agttttaagt 360  
tagagagatc agatgaagtg ttgttt 386

<210> 8751  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-052-Q1-E1-H2  
  
<400> 8751

ccgggtctac gatcaggact acaagacata cgtctcggtt attgttcggg gagataaggc 60  
aaaatatatt taccaaaaagt acttttgttc acttacagct tagtggaggg ctgacccccct 120  
tgcgggcact ggcggcaag gacgcctcc gaggcagggc ctcttgga gggtttcttc 180  
tctcgtttgg aaacctttgt ttccaagtct tcaggggtgg tccttttctt tccttcggaa 240  
gaggggaattt cggattcttc tcctcgattt tcctccttcg tggagataact aattctctg 300  
gtttggatga gtaatacgtg aggctcgctt ttggcttctt catctctcct tttatcttcc 360  
cccgagggca cttgataagg tatgtactcc agcatcctgg ctagtat 407

<210> 8752

<211> 371  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-H3  
  
 <400> 8752  
  
 cgggtccacg gcgaccacaa agagaagaag gacaagaaga agaagaagga caagaagcac 60  
 ggcgagggcc acaaggacga cgacggccac ggcagcagca gcagcgacag cgacagcgac 120  
 tgagccagct ccggccgcgc tccggcagca gcgtgcagtg taggcgagat cgatgaacgc 180  
 ttggggagaag tgtggcatatc atatattgtt caccggtttgg agcgtgtggt agcatatgta 240  
 tgtaatgcgt gacatgtctc atggatcttg tgatgtataa taattagccg gctgcaactgc 300  
 actgcacggg gcttgtaata ataacgttaa tgaatcatgt tggattgat gcaaaaaaaaa 360  
 aaaaaaacac a 371

<210> 8753  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-H4  
  
 <400> 8753  
  
 atgaacatct tcaccaaagg aggcctctct gctaggcccg ttctctgatg gagtcgcttg 60  
 cctcgcaagc gaagccggct gccgtgctct ggctcgcccg ctctctccag gccgcgcgtc 120  
 tccaccgcgt cgtctccttc tgcgtcagct ccagggtctc gtcgatcaga atcgctcagt 180  
 gcttctctgct caacgggttc atcttctctg ggagcttgct aaccttgaaa tcggtgggtca 240  
 ttccaactct tctatggata ctgcccgagc aatgcgatca atcatgggga caacatctat 300  
 gtgatcacac aacagctgtt gccttgattt cgttcttacg ttcggggctt gtcgagattt 360  
 tctatgtatt ttgggtttat cccctctaca tcttcagctt tataat 406

<210> 8754  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-052-Q1-E1-H6

<400> 8754

cgttgagctg catctgctgt attgagctgc cgaggtctgc tatgttgagc cgccgagggc 60  
gcgttgagcc gccggggcta tattgagtca cgggtctgcc tgagccatct ctgttgcggt 120  
gaacggatca tcgatcatcc gaacaaatca ggtgatatcc atctaagttt gttttattag 180  
cacatattgc tttttgtcaa aaaacagttt atctttgcct tgggtctgcaa tattgttgat 240  
gcaggacaat tgttcactac atcaacacga cgtggctaac ttacccatcc gcctgggtta 300  
ccgtgtctgt gattgacttg cctgtctgca ctggcttaca acaccgtggc tgactcatct 360  
gtctatatcg tctctgatgt tgccgtcgtc cttaacgttc gtcct 405

<210> 8755

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A1

<400> 8755

ctcatcgata gacgggacac ctttgccctc atcaagtggc atcagatttc caggttgctc 60  
ggtgagattt tacagttttt cgtagtttat atcgggtcag ttcgtcatat cgatagtcca 120  
cgaatcttcc agacaaaaaa ttagggtcag ttcattctta cggaaccaat ctaagccggt 180  
gcataatctt tttagggttt tgcgatgtgg aatttgcggt tgcattcgctg tttctaactg 240  
ctgggcgctac agtctagtcc tttacacttt cgagttctgg tcataagttg tcaagtcgct 300  
gccgcaccat catcatcaat cctgtcatct 330

<210> 8756

<211> 248

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A10

<400> 8756

ttccctgggt tttgttgagt taacagttta ccagtgaac ttcctgtact tcgggtgtgt 60  
cgaacgacca caccaagacc gcttagggat cccaacatt ataaatactt caataatatt 120  
cgcaataagc agattgcgtt atcatattct tgctcgttct tcgattgctt gcaggaaaaa 180

accttcgtgg tcaggttgat catgccccac cctgggtcaat accctctcgg acttggttta 240  
gcgacttt 248

<210> 8757  
<211> 362  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A12

<400> 8757

gttaatgggc tccctcacgg ggccaccgtg cgccgagaac gtctactgga acgtcctggg 60  
caaggtgagg cagatgacca aggagcagat cgacctcgtc accgcgccgc tgccggccgc 120  
cgccaagcag aacgcccggc cggtgcaagc gctcaccggc agggtcctca acttctaaaa 180  
cccgcccaac agcatcatac ccttcgacat gtgatcttac cccattaga tgggggtccgc 240  
aataacctag aaattaaccg tgggtactgta atcgtgtatc accatcagcg tactgaccag 300  
ctaattctcgt ttttgccctg tcattatctc ttcgctgctt tactcagatg aaacattgtg 360  
ac 362

<210> 8758  
<211> 347  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A2

<400> 8758

ggaggaccta tgcgagtcta actttgtatt ctgacttgaa tgagtagtgt tgtgctcagc 60  
ttggggatga cctatgagat tcttagctag aattccgatg tgcagtgcgc aataacgaag 120  
ggaaatctgt cttgagggca aatacttcgg gtcagggaac cttgacatta tcagacgcag 180  
aagtcacagg ccagaaaatc agtaacggga tatgataatc atcgctctaa ctgaaatcac 240  
tatcttctgt gggaatggcc aatccgaatg ttctgaagca ttccttgaag cagtcgctaa 300  
gtccgtcgag ttccagcagt ccagatgcgg acatcctctt ggcttaa 347

<210> 8759  
<211> 368  
<212> DNA



<400> 8761

cggaaatggc acttgctcga tcgtcttggt gccgtattgt tgtaggaggt ccatatgatg 60  
tggtacctca tagcttgctt ccatgactga agggaaattc ccattctcgg ccatctttct 120  
tgagggggctt ccgacgatgg aagtgtcacc ctgcgtcata ggtggtcgcc ttgttcttga 180  
agatgtcaat gtatgcgaac tcatgggaag taggcgaaga tgcgtacgt ccgaaggcga 240  
agatgccttg ataacacttg gcaaagatgt cgaagtgggt ggtgtagccg taactacgtc 300  
ttggtgggtgc tcgtctcggg gtcttctctt tttctcatga agcttcgcct tggcgtgtag 360  
taaggctttt tgggacttgt gcatttgcgt ttgtggagca tcttcaagat gataatgtca 420

<210> 8762

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-A9

<400> 8762

acgggcgccc aaatgatagc tgcaacgatg ttttcgttgt tgttcagagg agaaaagtta 60  
agacttggtc aaaacattgc tgaagaaaaa ctgtgtattg ctcacacctc acaaacagga 120  
atactagtcg agctgcttgg tcccaactgt cgcccgcttc ttgtgcaatt ctgcggttta 180  
ttgacgacat aggttgacaa tgggtgtggga ccgtgatgtc aggaaccag gaggaagcaa 240  
aaaaattatt gttttatata ctaataagga ggcacttgcg tacgtgcggc tatggccctg 300  
gtgggtcccc actgtcatcc tctccaagta aagtcatctc ctcatcctca tgttcgttga 360  
ccatgttgat aacgcgagac ggctatgccg cgacgaacgc aacaactcca aaga 414

<210> 8763

<211> 382

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B1

<400> 8763

gaaacggggg tcatcagcat gagcatcata attttccatg taaatactac tgtccatctc 60  
gacaatagtt tccccaattt cagacataac ggcagaaagt gcgaggagca ggaagaaaga 120